The Beaver

MAGAZINE OF THE NORTH

MARCH 1954

Rae meets Eskimos with Franklin relics, Pelly Bay, 1854 — Charles Comfort.

RAE CENTENARY NUMBER

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Clifford Wilson, Editor

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Commemorating the discovery, by Chief Factor John Rae, M.D., of the fate of the Franklin Expedition

CONTENTS

OUTFIT 284 MARCH 1954

France on the Prairies—A. E. M. Hewlett ... 3

Potlatch in the Park—J. K. Nesbitt ... 8

Journey for Frances—II—Frances Simpson ... 12

Wings Across Greenland—Frank H. Ellis ... 18

Early Northern Surgeons—Ross Mitchell ... 22

Rae's Franklin Relics—Robert Kerr ... 25

Rae of the Arctic—R. C. Wallace ... 28

John Rae's Stone House—J. B. & M. B. Bird ... 34

Rae's Arctic Correspondence—Vilhjalmur Stefansson ... 36

Rae on the Eskimos—John Rae ... 38

The Old Shipwreck—P. E. Murdoch ... 42

Cobalt and Porcupine—O. T. G. Williamson ... 44

Early Days at York Fort—T. E. Tyler ... 49

Spring Packet ... 54

Books on the North ... 56

TWO DOLLARS A YEAR

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Some of the French aristocrats of Whitewood, Saskatchewan, are seen in this photo of the town band. Comte de Soras and M. de Wolff are standing on the extreme left; Comte de Jumilhac stands second from right; and Comte de Langle sits in the centre

France on the Prairies

by A. E. M. Hewlett

Cartoons by James Simpkins

IN the colorful tapestry that is the history of Canada, the episode of the French Counts of St. Hubert makes a quaintly formal and brilliant patch, lavish in gold thread, but insofar as it resembled the life of a French nobleman on his estate, hardly fitted into the whole pattern then evolving in the West. The first of them arrived in the mid 'eighties, the last left shortly before the First Great War. They left behind no single member of their families, much money lost in ranching and in commercial schemes, houses and lands sold for a song, and memories, now growing dim, in the minds of onlookers and of continental workers the Counts imported.

Yet the cash they set in circulation helped to put the district on its feet, and the little church they gave together with the sturdy quality of their colonists formed the nucleus of today's devoted Roman Catholic community.

When Mrs. Hewlett wrote "England on the Prairies," the Cannington Manor story published in the Dec. 1952 Beaver, *she made reference to the French Counts of Whitewood. By request, she here enlarges on that reference.*

The group who invested much in the various attempts comprised Dr. Rudolph Meyer from Maule, Seine-et-Oise; M. le Comte, later Marquis, de Roffignac from Limousin; M. le Comte de Jumilhac, later Chapelle, Marquis de Richelieu, from Perigord; M. le Comte de Soras from Annonay; M. le Comte de Beaudrap; M. le Comte de Seyssel; M. le Comte de Beaulincourt; M. le Comte de Quereize; M. le Baron van Brabant and his brother from Belgium; M. de Wolff from Lyons; and M. Janet.

The mainspring that sent such men from their estates in the midst of European culture may have been adventure or the hope of making money, perhaps both. Political bias against the French republican government could have influenced them.

The late John Hawkes, Saskatchewan Provincial Librarian, once editor of the *Whitewood Herald*, wrote of the Counts in his *Saskatchewan and its People:* "One and all they deserve a place of high honor among Saskatchewan pioneers. It is always a pleasant memory to think of these gallant and courteous gentlemen of old France, and the writer, who knew and worked among them, is glad and proud to have the opportunity of paying a permanent tribute to their worth."

It was not chance, but the lie of the creeks and the nearness of Moose Mountain that decided the location of the two unusual settlements in Assiniboia, about 45 miles apart, Cannington and St. Hubert. Captain Pierce and S. Spencer Page, each with a land guide, met on the banks of the Pipestone Creek and decided to go further south, picking the slopes of the creek that took the name of the village, Cannington. The first of the European gentlemen of means, Dr. Rudolph Meyer, no doubt also with guide, chose the Pipestone valley, ten miles south of Whitewood.

The Pipestone creek, a raging torrent in the spring thaw, subsides to a quiet stream between banks that were in places abrupt, in others gently rolling up to wide hay flats, gay with wild flowers. "One could pasture a thousand goats here," ecstatically exclaimed one of the Frenchmen, on first seeing the knee-deep grass, ravines thick with willow and aspen poplar, and in the distance the low hills of the Moose Mountain, rich then in bear, elk and moose, with the occasional timber wolf and lynx, and red foxes and coyotes, too.

The late Father Fallour in his story of the Parish of St. Hubert refers to the Counts: "*Ces Messieurs, grands chasseurs devant le Seigneur, devaient instinctivement avoir au moins un certain faible sinon une devotion speciale pour le grand Patron de Chasseurs, Saint Hubert.*" And so they named the new colony in his honour, a number of years before the first church was so dedicated.

Whitewood on the newly built C.P.R. already functioned as supply centre when Dr. Rudolph Meyer, a cultured French-speaking German arrived with a cousin, later his bride, to take up homesteads in the Pipestone valley. On her land, S.W. ¼ Section 4 Township 15 Range 3 West 2nd Meridian, arose at least as early as 1885, the house, still standing, and buildings that became the centre of operations. The name, *La Rolanderie* was that of a chateau in Maule, Seine-et-Oise, the property of a M. Lorrain, who is said to have invested twenty thousand dollars (*cent mille francs d'actions*) in the ranching venture. More land was added, and good stock, Shorthorn cattle, horses and hogs.

M. le Comte de Roffignac is said to have come out at the same time. Also on early arrival was M. le Comte de Jumilhac, who had a house of many windows built overlooking the valley, and named it for his ancestral estate, Richelieu. He seems to have specialized in sheep, as did M. le Comte de Soras who built an extensive place in the Mountain some 40 miles from Whitewood.

They imported workers they considered necessary to build up a life approximating to that of a nobleman in France. Several of the Counts lived in the village of Whitewood, others right on their ranches. They built houses not on the scale of some in Cannington, but imposing for the time, imported whole families to work for them, land workers, gardeners, grooms, house servants, and craftsmen.

The late Mrs. L. W. D. Parks, in the *Whitewood Herald*, wrote appreciatively of the Frenchmen observed in her childhood: "When the Counts and their families arrived they lived in a degree of state. They imported expensive foods, wines, confectionery, and all the various luxuries to which they had been accustomed.

"Thoroughbred horses and dogs were brought from France as well as all the finest accessories of riding and driving equipment. They rode and drove a great deal. Their

"They imported workers they considered necessary to build up a life approximating to that of a nobleman in France."

"They liked show and noise too. Horn blowing and dogs running alongside. A regular turnout."

equipages, smartly turned out, came tooling over the winding prairie trails, high dog carts which might have rolled through the Bois de Boulogne, drawn by sleekly groomed, spirited horses—the sole watcher perhaps an inquisitive gopher by his hole, or a lazily poised hawk floating above the vast silence."

The extensive ranching did not, after all, take in one thousand goats. A scheme to raise remounts for the French army was centred on La Rolanderie but whether under Dr. Meyer or later, or with what measure of success, I do not know. "Sixty-five mares were bought from the Collins Ranch at Pincher Creek, some of them bronchos sired by an English thoroughbred," said an old-timer. He chuckled as he added, "They almost smashed up a coach, a three-in-hand it was. My brother and I were putting up hay for the Count and we watched from the loft. For some reason or other the Counts undertook to hitch it themselves. Several of them, a couple of girls aboard too, going to the Moosomin races. Don't know why their man hadn't hitched up; those Counts didn't know the first thing about it. Magnificent horsemen, of course, they could ride anything, and drive anything too, once the lines were handed up to them. These were three of their new horses, half broken mares, sorrels. First thing they did was to hook on the traces, and fasten the lead horse to the end of the pole. Never lifted the neck yoke on. Off they went, in the biggest mix-up I ever saw, headed for a bluff. I can see yet a young French girl standing at the door of a shack, sabots on her feet stuffed with hay. She was screaming and waving her arms and praying to the Virgin they wouldn't be killed, (and me and my brother praying they would). They were milling around and cursing their men in French, and then they made us get down from the loft, wasting our time and no thanks. Took us half the morning to get them going."

I asked what the coach was like.

"Oh, a tall sort of rig, bright color, they liked show and noise too. Horn blowing and dogs running alongside. A regular turnout." Somehow his words recalled a Christmas card with children, dogs and pigs scattering before a coach as the horn blew loudly.

Mons. de Wolff went into partnership with Alex McKenzie in a cattle ranch, but a hard winter brought much loss. Cows were kept on most if not all the ranches, but possibly the many sheep rendered the pastures uninviting to cattle. Some Berkshire hogs were kept. One time on La Rolandrie more hogs had been raised than there was food or accommodation for, so the men were ordered to throw the surplus into the river. This was done. Hogs do not swim well, being apt to cut their own throats with frantic sharp hoofs; these were but sucklings.

Of the sheep raising I have authentic information from Thomas Harkness of Kisbey, a Scot who arrived at Calgary in the spring of 1888 with his trained collie, Bess, for which he had paid thirty-five shillings in Scotland, and which was later valued at $200.00. They walked to the Cockrane Ranch and herded three thousand yearlings until fall when the firm sold off all sheep. Comte de Jumilhac turned up to buy sheep, bought six hundred at about, $4.00 a head, and hired Tom Harkness with his dog to take them by train and trail to the ranch in the Moose Mountain.

Sheep were kept also on the ranches of Comte de Soras, Comte de Beaudrap. Comte de Quereize, and Mons. de Wolff, range sheep of the fine wool breeds, but later T. Harkness was sent by Count Jumilhac on various trips to

Ontario and west, to buy pure bred rams and some ewes of Shropshire and Oxford Down.

"I worked for Count Jumilhac four years," said Mr. Harkness "then started for myself. The relations between us were always pleasant. I was paid in cash, started at thirty dollars a month, later more. The Count lived in town, but he used to come out to the ranch now and then to inspect. One day he found me and the collie out with the sheep. It was a bitter day, very cold and blustery. He ordered me to the house. 'Let the sheep go where they will,' he said. 'It isn't fit weather for even the dog to be out.' But of course I stayed with the sheep."

What success the operations of the first La Rolanderie Stock Raising Society had is lost in the mists of time, but it is certain Dr. Meyer gave up in 1889 and returned to France for good. Also returning for the winter was the Comte de Roffignac, a versatile, irrepressible enthusiast, who seems to have had a finger in every pie and usually burnt it undismayed. A new Rolanderie Stock Society was formed with capital in France, and the Comte de Roffignac returned in 1890 as manager to take up residence in La Rolanderie together with his bride, daughter of M. le Baron de Salvaing de Boissieu.

Grandiose plans were now launched to process agricultural products on the spot, both by La Rolanderie Society and private investors. A small brush-making factory soon folded up, the attempt to make Gruyère cheese failed in one year, chicory was grown and put on the market for some time, but the most ambitious of all, sugar beet did not even get to the point of manufacture into sugar.

One Monsieur Janet, described as "tall, fair, gentle mannered," son of a champagne grower in France but without his father's business experience, together, it is said, with the Comte de Seyssel had a factory built of logs and installed the particular machinery, some of it copper, required for cheese making. They appointed one F. Dunand as manager, and one Bajolain as cheese maker, but ignored Dunand's advice to have the local milk analysed. The cheese known as Gruyère comes from cows on luscious year round pastures; prairie milk depends for many months on dry feed. Of the large herd of cattle bought thirty died the first winter. Monsieur Janet and the Comte de Seyssel abandoned the attempt at the end of 1893.

The chicory scheme was foredoomed. This plant is grown both in small gardens and commercially in France and Belgium to mix in coffee, giving it a certain flavour. Buoyed up by characteristic optimism, Comte de Roffignac built a house on a plateau overlooking the Pipestone, named it Bellevue, installed as manager the Baron van Brabant and his brother, imported land workers to sow, to hoe, to thin, to cultivate and to harvest many acres of chicory all by toiling hands bending over the rows. Millet's famous pictures come to mind. Machinery for drying the roots, roasting, grinding and mixing with the coffee was first placed there, then at Richelieu and finally at the ranch of M. le Comte de Beaudrap, while the product was put on the market successively as Bellevue Coffee Brand, Richelieu Brand, etc. It is said the mixture was uniform under the Comte de Beaudrap but that still did not create a demand. "They grew enough that first year to supply all North America for twenty years" said another old-timer laconically, "Wasn't much coffee drunk in the west anyway and we didn't like chicory."

The sugar beet project was well thought out. Seed of a certain variety of beet high in sugar yield was distributed to local farmers by the Comte de Roffignac in spring. An expert pronounced the result satisfactory. The count then called a meeting in November, 1890, fully reported in the *Manitoba Free Press*. He gave an enthusiastic picture of the profits to be expected, and said he was assured of capital from France—rumour says some five hundred thousand dollars—to build and equip a factory for extracting sugar from beets. The sale of alcoholic by-products was, however, forbidden by the government. The capital was not forthcoming and that scheme collapsed.

The Counts and their families attended Race Days. To Cannington and to Moosomin they came in coach and four or a three-in-hand with coachman and footman in livery, tall hats with cockades, white gloves and all. The language barrier, added to the haughtiness of the Frenchmens' manner, caused the easy-going English gentlemen, many of them well-connected, to dub them "snobs," a word dear to our hearts, and usually used to denote someone a trifle higher in position, conscious of it, and perhaps a bit wobbly in it. Nothing wobbly about the Counts; they were of ancient, some of royal lineage.

Writing of the local races, Mrs. Park contrasted these finished products of civilization, fairy-like to a child, with the Cree Indians in paint and blankets, squaws with papooses strapped to their backs, squatting to watch the races, uttering guttural cries as the riders swept round the course. "Ranged along the sides of the track was a throng of many nationalities, overalls and straw hats being much in evidence. Across the course were perhaps some of the French aristocrats on horseback, in faultless riding attire, ensemble complete to crop and martingale. In the high dog carts or in phaetons were seated some of the titled French ladies, exquisitely dressed in Parisian gowns and hats. Their complexions, aided by art, were lovely pink and white, and were shielded from the prairie sun by frilly silk-and-lace parasols."

John Hawkes put his foot in it one day. Forgetting these Frenchmen were monarchists, he expressed to M. de Wolff, who by the way had lived in Paris, London, and New York, his sympathy in the assassination of the French president. He wrote: "De Wolff gave me a kind of stony look, and said nothing for a second or two. Then he shrugged his shoulders slightly, spreading out his hands, and said in an indifferent tone: 'Oh, we can get plenty of presidents'. "

The Frenchmen's Ball was an event still fragrant in the memory of old timers. The late Mrs. Park described it: " It was astonishing the number of white shirt fronts that were mustered, not to mention white kid gloves. Many pretty dresses of the style of the late eighties were in evidence, souvenirs perhaps of better days across the sea. The vivacious Frenchwomen of gentle birth and breeding in

"Thoroughbred horses were brought from France."

fashionable décolletée gowns and jewelled neck and arms lent an air of distinction in spite of the incongruity of the crude setting."

Their homes in town were surrounded by trees and formal gardens. That of the Comte de Soras still stands, but gone is the clock face in flowers; only tall pines he planted still shade the house.

The Comte de Jumilhac, a bachelor, crops up in all reminiscences, outstanding as a leader. A fascinating glimpse of a further adventure of this gallant Frenchman occurs in a letter from E. C. W. Lamarque, formerly of the Hudson's Bay Company.

"That year, 1898, a small steamboat arrived at Ile à la Crosse. It belonged to three or four would-be Klondykers, all, I believe, from the neighborhood of Whitewood. One was a German; another an Englishman and the third a Frenchman—a Count Jimmyack—probably wrongly spelled, but that was how the name was pronounced. The boat got as far as McMurray, but whether the boiler and engine did, I know not. They wasted three weeks of precious summer weather at Ile à la Crosse. It was probably the first and last steamboat to have been on the waters of the upper Churchill, but of this I am not sure. Certainly the first."

Comte de Jumilhac served in the South African war. A pleasant story tells of an honour paid to a young Canadian, a neighbor's son from Whitewood. Constable C. W. Larry of the R.N.W.M.P. served during the First Great War with the artillery. M. le Comte de Soras was, to his sorrow, too old for active service but held some high army rank. He invited this young Canadian to the castle and gave a dinner in his honour to which the local nobility came. Quite an ordeal, but old Sergeant Larry still smiles to remember it.

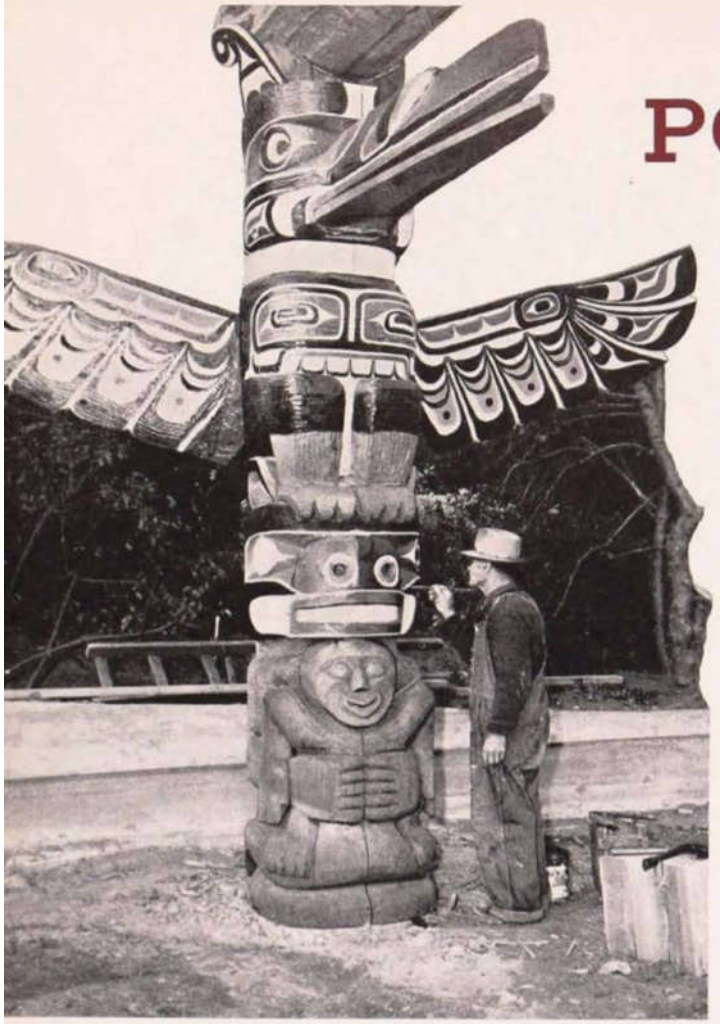
One important achievement of these Frenchmen was the gift of the first church. In the year 1890 all was at fever heat of expectation. Then came from Fannystelle one Father Muller, described as nervous and excitable. He must have been a whirl-wind of energy, for in that year he organised the building of the first church, paid for by the Counts and their friends, and constructed by French stonemasons. It was of local stone, with eight stained glass windows, executed by an artist in France using as models the son and daughter of one of the noble donors. The church itself was taken down later and moved to a more central spot, now St. Hubert's Mission, together with windows, an oil painting of the Annunciation and a magnificent carved hardwood door. All was lost years later by fire.

On the side of the first church a cairn from its stones surmounted by a Cross was built for the jubilee in 1940. Close to it are a dozen graves of those earliest immigrants who died so far from the dear familiar life of their homeland.

The legend of the Frenchmen's experiments are as "a tale that is told." The money they lost set the district on its feet, the church they built helped to develop the flourishing Catholic centre that St. Huberts is today. Comprised in the hamlet are a large church with statue of the Virgin Mary sculptured in France, a presbytery of Les Fils de Marie Immaculée, and the Home for the Aged so well and sympathetically managed by the Sisters of St. Joan of Arc in well treed grounds.

Much of the land was bought up by the Counts' own men, and of these the many descendants have spread far and wide, citizens of integrity in agriculture, business and professions.

The counts did not as they hoped found a profitable replica of Old France, but they brought out the finest import a new country can have—men and women who endure hardship to establish permanent homes of good living. ◆



Mungo Martin (Chief Naka'penkim) paints one of the two rear houseposts he has carved for his new house. Top figure is Ho'hoq, lower is a bear holding a child.

POTLATCH in the PARK

by James K. Nesbitt

Photos by B.C. Government Travel Bureau

Last December a coast Indian feast or Potlatch was held in a new Kwakiutl house built in Victoria's Thunderbird Park.

THE log fire burned eerily bright on the earth floor in the centre of the great log house, and the sparks spiralled up to the opening in the roof, and there was smoke in the eyes and fascinating rhythm in the ears. The four old chiefs chanted and beat time with sticks on a bench, and the masked and costumed dancers swayed about the fire and stamped their bare feet on the cold, damp earth. The smoke floated into the air in mild waves, and the firelight cast flickering shadows on the walls and the dim, far-away ceiling; the dancers seemed as though shaken with frenzy; the chant of the old chiefs became louder and louder, more impassioned, and an ancient woman, heavily lined of face, became carried away by it all, back through the years to her childhood. She seemed as if in a spell and then she, too, beat time with her hands and her feet, blind to all around her, but seeing all that the scene meant to her.

It was a potlatch in the new Kwakiutl Indian house in Victoria's famed Thunderbird Park, hard by the Legislative Buildings and the Empress Hotel.

J.K. Nesbitt of the Victoria Daily Colonist *has written many articles about the interesting historical background of Victoria and its neighbourhood. He is a member of the council of the B.C. Historical Association.*

The potlatch was a tremendous success. It was given four times—privately for the Indians and a few anthropologists; for a group of specially invited guests—Mayor Claude Harrison of Victoria and cabinet ministers; twice for the general public. The public almost stampeded. One night nearly 2,000 people lined up for blocks, two and three deep, but couldn't get in. The new house holds only 300 people. Mayor Harrison immediately said Victoria should have a genuine Indian village, that the potlatch should become part of Victoria's uniqueness and culture.

Provincial Government anthropologist Wilson Duff was more than delighted. For it uncovered as he said "a wealth of native dances and a knowledge of traditions we didn't know existed—and it showed just how colourful they can be and what amazing public interest this sort of thing arouses. It made us realize we haven't been doing justice to this part of our local background."

The host at the potlatch was 74-year-old Mungo Martin, (*Beaver*, March 1952), a Kwakiutl chief, who has been

David Martin, Mungo's son, paints a "copper" held by the bear on one of the front houseposts. Above the bear is Dsonoqua, wild woman of the woods.

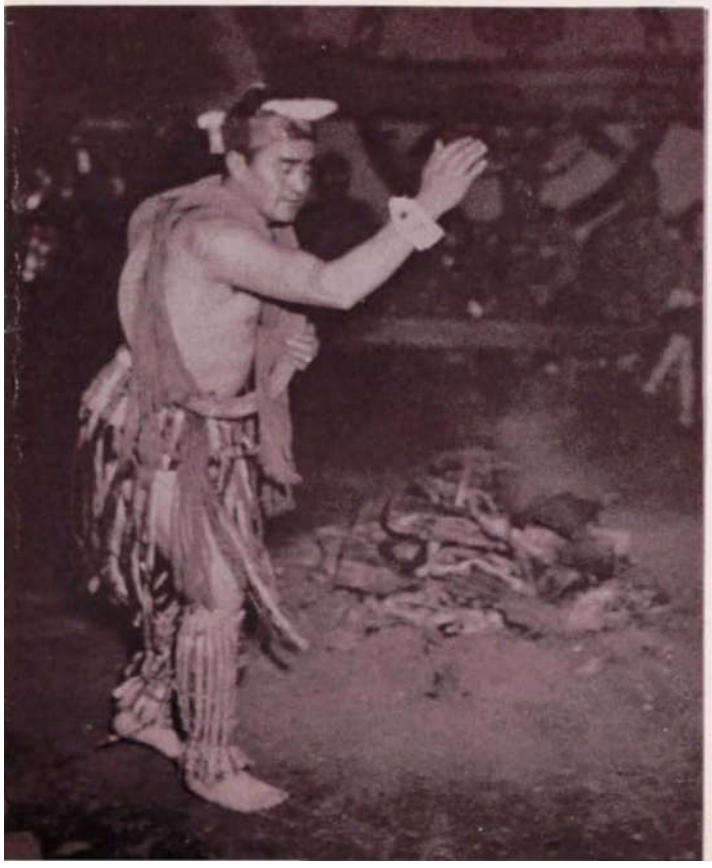
engaged by the government to carve new totems and to restore the old ones, which had been decaying in Thunderbird Park. So historically priceless are these poles that eventually they'll be stored inside and replicas erected in the park. Wind and rain and insects have been taking their toll.

The new Indian house, the centrepiece of the park, is authentic Kwakiutl, patterned after the house in which Mungo Martin was born at Fort Rupert, on the northeast coast of Vancouver Island. The style of construction, the carved houseposts, the huge adzed beams, the adzed cedar timbers and planks, the house-front painting—all are similar to those of houses built during the 19th century by the Kwakiutl tribes of northern Vancouver Island, and the adjacent mainland. Some concessions had to be made for permanence—concrete footings, steel supports, and some other unseen features.

The Fort Rupert house, after which the Thunderbird Park house was patterned was built about a century ago by a chief with the name which Mungo Martin has since inherited—Naka'penkim. The original house was much larger, but it was of the same general construction, and bore the same carvings on its houseposts. The right to use these carved crests passed to Mungo Martin when he assumed the name several years ago. This, then, is more than just a copy of a Kwakiutl house. It is the house of Chief Naka'penkim of the Ma'mtagila clan of the Kwakiutl tribe.

So it came about that the potlatch which captivated the people of Victoria and excited anthropologists—including

David Martin, in a costume of red cedar bark with ermine wristlets, dances the first part of the Ha'matsa or cannibal dance.



The Women's Dance. Mildred Hunt in a Chilkat blanket on the right, Helen Hunt in button blanket in background. Between them is seen the housepost shown opposite.

several from the University of Washington—was a form of house-warming, a very important event for a large group of Indians who gathered from many parts of Vancouver Island. But a number of the Indians present didn't know what it was all about, any more than did their white-faced brothers and sisters.

Wilson Duff explained that, "the local Indians [Coast Salish] who were invited did not understand the speeches in the Kwakiutl language. Also, they had never seen masks like these before. The interpreter had to explain it to them, as well as to the whites. Mungo Martin had to bring in officials and dancers from the Kwakiutl tribe, and they came from Alert Bay, Fort Rupert, Blunden Harbor, and Quatsino. Inside the house these Kwakiutls were at home; outside they were in a strange land.

"The first day (Indian day) was a real potlatch. The door was closed to all whites except a small number of anthropologists, whom Mungo specially invited, so that this last great potlatch would be thoroughly recorded. Solemn ceremonies preceded the main dances; the singing of mourning songs for recently deceased relatives (for winter dances cannot be performed until the tears are wiped from the eyes); the ceremonial change-over to winter dance organization, and the distribution of the red cedar bark head-rings symbolizing the winter dance season. Then the winter dances could begin!"

To the Indians of coastal British Columbia, completion of a new house was a most important event that called for great ceremonies and feasting. At such a housewarming, the owner must prove his hereditary right to use the carved and painted crests on the houseposts and the house-front, by relating his family traditions and accomplishments. He is expected to "potlatch" gifts to those who helped him build the house, and to the important guests who have come to witness the ceremonies. He usually takes the opportunity to bestow important inherited names on members of his family, and to display the masked dances

and other performances which belong to himself, or members of his family by virtue of inheritance or marriage.

All this, Mungo Martin explained to his guests, speaking in his native language, but with the aid of an interpreter.

David Martin, Mungo's son, took part in the dances. He later recalled potlatches he had danced in when he was a boy. He laughed as he remembered them. Why, he said, sometimes they lasted for a month, sometimes two months. The youngsters had a wonderful time. They were always doing things they weren't supposed to do. Potlatch-time, to the boys and girls, was just like one long party. There was always plenty to eat—dried salmon and berries, now and then a seal, clams by the dozen, and oolachan oil.

Important families had names for their houses. Old Naka'penkim owned two such names, and Mungo Martin chose one of them for his new house in Thunderbird Park—Wa'waditla, meaning "he orders them to come inside." That indicates the chief in this house is so all-powerful he can order anybody into his house, to become his servant.

The carvings on the posts which hold up the new Thunderbird Park house are copied from Naka'penkim's old house at Fort Rupert. The back posts have the mythical bird Ho'hoq at the top and the Grizzly Bear at the bottom, holding up a child. The front posts show the giantess Dsonoqua (Emily Carr did one of her finest Indian paintings of this figure) at the top, with Grizzly Bear holding a copper below. Each of these figures represents the origin-legend of one of the clans to which Naka'penkim was related by heredity or marriage.

The long-beaked Ho'hoq, which startled the guests by loudly clapping its beak, was the main crest of the Gi'ksem clan, to which Naka-penkim's wife belonged.

It was customary for the tall, heraldic pole in front of the house to display the crests of the clans to which the owner of the house belonged. The great pole in front of the Thunderbird Park house, however, was carved by Mungo Martin to represent all of the Kwakiutl tribes, and it shows crests of four of them—the Awaitla, Nakoaktok, and Nimpkish, as well as the Kwakiutl proper.

The second part of the Ha'matsa dance. Henry Hunt is the masked figure.

Tony Hunt darts about in the Bee Dance, "stinging" bystanders as he goes.

The top figure is Tsoona, the Thunderbird, a crest of the Tsoo'tsuns clan of the Awaitla tribe of Knight Inlet. The original ancestor of this clan was the Thunderbird, who became a man. Later, his son returned to the sky to control thunder and lightning. Next is Wa'libui, the Grizzly Bear ancestor of the Wa'walibui clan of Kwakiutls, and then a man, representing the same being after he became human. Next is the Beaver, Tsa'wa, an ancestor of the Naboaktok tribe of Blunden Harbor, where Emily Carr also painted a magnificent Indian scene. One clan of the Nimpkish tribe has the mythical giantess Dsonoqua as its crest. The bottom figure on the totem pole represents this tradition and shows Dsonoqua holding her son.

After the ceremony was over, Mr. Duff explained something of the history of the Kwakiutl ceremonial dances we saw at the potlatch: "More than all other tribes of the B.C. coast, the Kwakiutl are famous for their masked dances. These dances were performed during a definite season of the winter, when the spirits were thought to return to the villages. The masked figures were the spirits, the whistles were their voices. The persons who were possessed by the same spirit grouped themselves into an order or society. There were many such 'secret societies,' but the highest was the Ha'matsa, or Cannibal Society.

"Each dancer had a special winter dance name. In winter, as soon as the cedar bark headbands were donned, symbolizing the start of the dancing season, the summer names were dropped, and winter names only were used. The great social and ceremonial events of the season were the initiation of young people into the dancing societies. These were open only to persons who obtained the right through inheritance or marriage. The initiations were long and expensive, requiring that the host display his traditional masked dances, and give food and gifts to the guests.

Kwakiutl dances and songs, therefore, are owned by individuals. They are passed on by inheritance or marriage, and most of them are associated with the winter dance secret societies."

These, then, were some of the fascinating dances we saw at the potlatch in mid-December. We saw, for instance, Ga'lokwimth, wife of Baxbakwalanuxsiwac, the Kwakiutl spirit of Cannibalism. This was a huge mask, with clapping, rumbling jaws, a splendid, handsome, quite awesome specimen of Indian totem carving. At the beginning of the program, the long beaks of the Ho'hoq birds at the tops of the poles holding the roof beams snapped for silence among the guests. There was an impressive Yathla, or cradle ceremony. There was a large, carved cradle and four old chiefs chanted and shook their rattles until the baby fell cozily asleep. This ceremony was performed for Dorothy Martin, the granddaughter of Mungo.

There was a realistic bee dance around the flickering fire, done by a child; and the women's dance, the women, too, in bare feet on that cold, damp earthen floor, and as they danced round the fire they scattered eagle-down to show their hopes for peace among all tribes, all nations, all people. Came then the Dance of the Animals—a wolf, raccoon, a mouse, a kingfisher, a night owl, a marten, a squirrel, a wren, a pair of deer, a wild man. Here was a wonderful spectacle indeed, as brilliant as any ballet, authentic, and filled with Indian history. Nothing had been changed.

There was a spirit of friendliness about the potlatch in Mungo Martin's new house. Those who had thought that potlatches were drunken, frenzied orgies were surprised,

The part of the Squirrel in the Dance of the Animals was taken by Jimmie Walas.

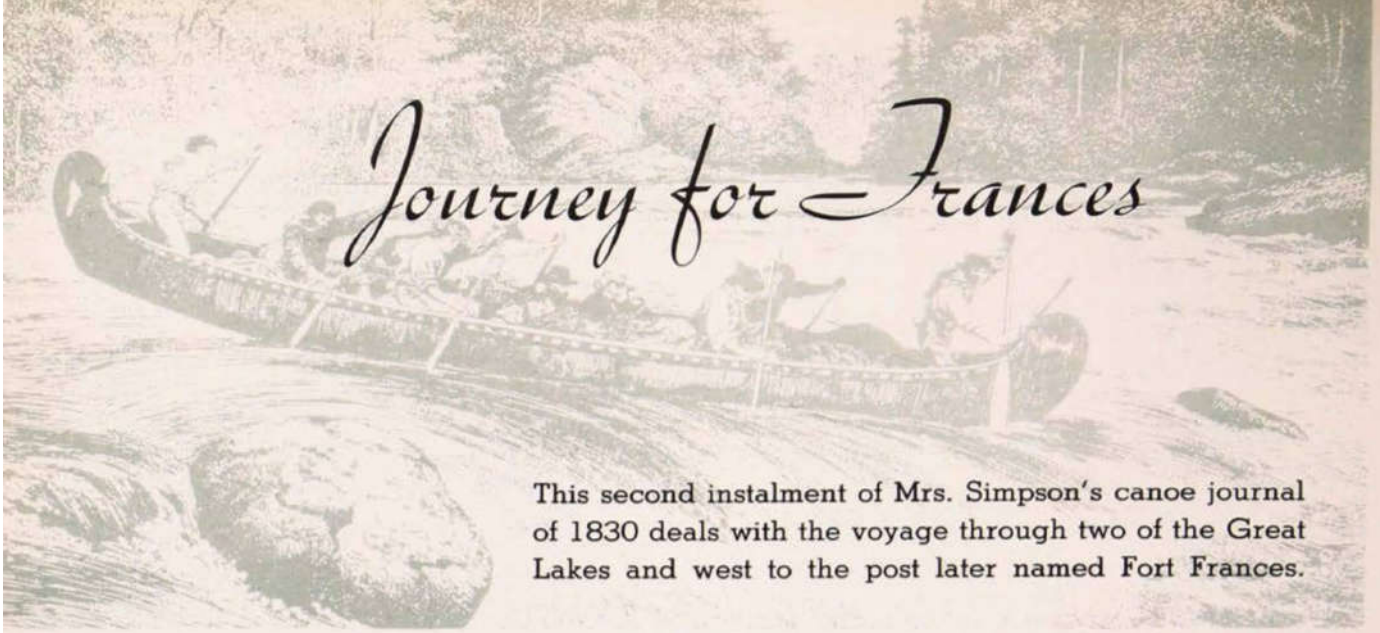
This is the Owl in the Dance of the Animals. Mildred Hunt, seen in the top picture on page 9, is behind the mask.

and pleased, and wondered why the government had frowned on them.

Sitting in that big house, warmed by the open fire, the smoke in our eyes, the chant in our ears, it seemed impossible to believe it was 1953 and that we were in the heart of busy Victoria. It was easier to imagine that house on some lonely beach far up the coast, one of those long, curving beaches washed by the swells of the Pacific, a beach with Indian dugouts drawn up. We could almost hear the waves washing the pebbles, the sigh of the fir trees over the house, and the lashings of the rain . . .

Yet there was sadness at that ceremony, for the old chiefs knew that potlatches are going, that the young Indians of today are not much more interested in them than they are in carving totem poles. "There's lots more masks," as one of the old men said, "but there's nobody to wear them."

Nevertheless, the potlatch and the new Kwakiutl house made a deep impression on those who saw them, and many who have scoffed at Indian art and Indian history have found a new interest and a new meaning in them, through the efforts of old Chief Naka'penkim and his anthropologist friends. ◆



Journey for Frances

This second instalment of Mrs. Simpson's canoe journal of 1830 deals with the voyage through two of the Great Lakes and west to the post later named Fort Frances.

Introduction by Grace Lee Nute

GOVERNOR George Simpson, with his bride and their canoe party, arrived at the mouth of the French River in May 1830, to begin the voyage through Lakes Huron and Superior, which stretched for hundreds of almost unbroken miles before them. It must have been a welcome change to the little English bride on her first canoe trip. Trudging, climbing, and wading across forty or so portages between Montreal and Georgian Bay could have been no great pleasure to a woman dressed in the styles of that day. At Sault Ste. Marie there was a portage between the two great lakes, to be sure, but a "civilized" one with habitations, a tiny village, and even a cart to transport her.

Fancy skirting Lake Superior's forbidding north shore from the Sault to Fort William in four days of actual paddling! With such demoniac speed Frances Simpson's husband invariably travelled on his crossings of the continent or parts of it during his long Company service. This time, however, he had business to transact at the chief Superior post, and so, five days were passed at Michipicoten. This respite gave his wife a chance to catch up on her sleep and to savour slightly the grandeur of the country through which she was passing.

After Fort William came hot days and cold nights—and mosquitoes, a new discomfort for the young London woman. Moreover, accidents beset the little company in the wilderness. It did me good to read that such experienced voyageurs as George Simpson always hired, sometimes let the canoe strike submerged rocks or stumps. On a trip last summer over part of this same route I heard both annoyance and reproach in the voice of my guide when our canoe hit something of the same kind during my stint as bowsman. Fortunately ours was an aluminum canoe and no damage was done, while the Simpson party had to wait until repairs to the canoe could be made.

But I was appalled when I read in Frances' diary that her party ran down the Maligne River, rapids and all, to Lac La Croix in six hours, whereas we spent the better part of two days on the same stretch. Of course, we did not have eight or more paddlers nor spring freshets to speed us along, but even so, the Simpson party's speed was phenomenal. To start in the morning at Sturgeon Lake, run down the Maligne River, cross Lac La Croix, descend the extremely dangerous Namakan River, cross Namakan Lake, and portage into Rainy Lake in one day—is fast travel in anybody's book.

Frances' diary settles one fine point for me. It has long been a question as to which of the many voyageur songs concerning roses was the great favourite. Many travellers reported this best loved song (other than *A la claire fontaine*, which was the universal favorite), but since few of them knew French well, or gave only the title or refrain of the song, it has been impossible to identify it. Now we have a diary which gives the crew's song as "*La belle rosier*." But it should be "*Le beau rosier*," because the word for rosebush is masculine in French, though "rose" is feminine. There was one song, however, that used both words, "*La belle rose du rosier blanc*." Apparently Frances telescoped the phrase without realizing that she was committing mayhem on the French language. If my theory is correct, then the voyageurs were singing my own favorite of all the canoe songs, "*J'ai cueilli la belle rose*."

The post at the far end of Rainy Lake—actually on Rainy River—was still called Lac La Pluie Fort when Frances Simpson stopped there for five hours on June 1, 1830. Some weeks later, on September 25, as the journal of the post records, "a flaccon of Spirits was broken & Spilled on the foot of the [flag] Staff, and the Fort named Fort Frances in honour of Mrs. Simpson's Christian name." Thus did the flourishing city of Fort Frances get its name. It was fitting that it should be named for her, one of the first white women to see and describe it.

Dr. Grace Lee Nute, research associate of the Minnesota Historical Society, is eminently qualified to write the introductions for this series of articles on Frances Simpson's odyssey. An accomplished canoeist herself, she is an authority on the Great Lakes-Lake of the Woods canoe route and the fur traders who lived and travelled along it. Her books include Lake Superior, Voyageurs' Highway, *and* Rainy River Country.

MAY 10th Continued our route thro this [French] river—which is a fine large stream, widening at times, so as to assume the appearance of a Lake: & in some places embanked by high rugged rocks, on the bare faces of which, stunted Pines bristle up deriving their only nourishment from Moss, and held by their long creeping roots, which fasten in the fissures and chasms of these mountains of Granite. Encamped at 7 P.M.—the evening close, with appearance of rain: and I felt rather uncomfortable from an apprehension that we should be visited during the night, by some of the Snakes, with which this place is infested.

11th At the Recollet Portage breakfasted, and the weather clearing up, changed our wet for dry clothes, but on going from the foot of the Recollet Fall, were very nearly drawn under it, by a strong Eddy: indeed so near, that the Spray from the fall showered over, & gave us another drenching; but by the exertions of the men at the paddle, regained the Stream, and got into Lake Huron at 2 O'clock.

This Lake had all the appearance of an open Sea: no land visible to Sea-ward, thousands of Gulls flying about, the Waves rolling long & heavily like those of the Atlantic, and dashing over the beach, and against the rocks, with the noise of distant Thunder. After getting into the Lake, we made very little progress, the wind being adverse; and at dusk put ashore, but had a very uncomfortable encampment, the ground being rocky & uneven.

12th Left our encampment at Midnight; and got to the Establishment of La Cloche at 1 O'clock P.M. remained here an hour, and travelled till Sun-set, when we obliged to put ashore, on account of the boisterous state of the weather.

13th We passed a most uncomfortable night of Wind, Rain, Thunder & Lightning, and started before daylight. Towards the Afternoon the wind abated, and the Lake became perfectly smooth, without a breath of air: but a dense fog came on, which put a stop to our progress, as we could not see 20 yards ahead of the Canoe.

14th The fog did not clear away until nearly 6 A.M. when we embarked—the weather became boisterous again, with hail storms, & exceedingly cold; but by great exertion we reached the Sault St. Mary's at 5 P.M. where the Company have a small neat Establishment under the charge of Chief Factor [Angus] Bethune, whose utmost politeness was called forth in his reception of us.

The Sault St. Mary's is a narrow Channel, through which, the waters of the great Lake Superior fall into Lake Huron, forming a line of demarkation between the British & United States Territory here. The Company's Establishment is of course on the British side: on the American side there is a small Garrison, and lower down a village. The appearance of a civilized habitation rising in the midst of a boundless Wilderness, served in a great measure to dissipate a certain feeling of melancholy, which I felt gradually stealing over me at the sight of Nature in her grand, but Savage and uncultivated state of Rock, Flood, & Mountain; without the sign of a living creature to admire the beauties presenting themselves on every side, or to wonder at, and praise the Mighty Power of Him, who had formed those vast, and desolate Forests unknown to Man, and adorned them with many a flower which "Wastes its sweetness on the desert air."

It likewise reminded me of the enterprise of Europeans, whom no difficulty could dismay, and who have at last established so extensive, and lucrative a commerce between the Old & New Worlds; providing employment for thousands, taming the ferocious lives of the Indians, and gradually introducing the peaceful occupation of husbandry; the first step towards civilization, before which, the wild & savage habits of the Aborigines must give way.

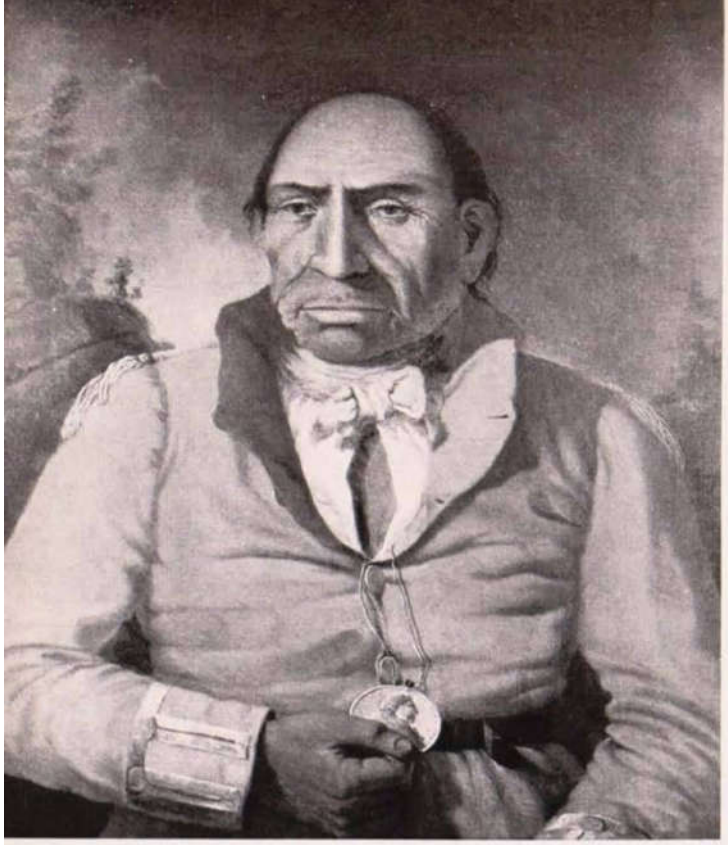
15th Left the Sault St. Mary's at 4 A.M. found the Portage exceedingly bad, so much so, that we passed part of it in a Cart. (by Moonlight). The frost very severe last night, but the weather unusually fine today, and the face of the magnificent Lake Superior as far as the eye could reach, like a Mirror.

Breakfasted at the Gros Cap, at 8 O'clock, and on making the traverse to Isle Erable, or Maple Island, overtook the Brigade of Recruits (under the charge of my cousin Thomas Simpson) which left Montreal a week before us. Put ashore, and gave the people a dram, and at ½ past 8 P.M. encamped near the Montreal Island, the Brigade still in company.

16th Embarked at 3 A.M. the morning very cold, and the frost so sharp during the night, as to occasion a thin coating of Ice over the surface of the Lake, which was as smooth & bright as chrystal. . . . The Country along the shores of the Lake very barren, and rugged, the fantastic shapes of the rocks, forming the chief variety: two of these, situated in the Lake a little distance from the Shore, of a considerable height, and almost perpendicular, were formerly worshiped by the Indians, who used to sacrifice human victims to appease the wrath of the Evil Spirit whom they supposed to inhabit them. . . .

At 5 P.M. put ashore, dressed & dispatched one of the voyageurs named St. Dennis, with a letter (across a neck of land) to Mr. George Keith in charge of the Compys. Establishment of Mechipicoton, to apprize him of our arrival and intention of stopping with him a few days. Arrived before the Establishment in fine style, the Crews of both Canoes singing "La Belle Rosier" at the highest pitch of their voices.

Camping on a canoe trip. A sketch by Mrs. Hopkins, wife of Sir George Simpson's secretary. Public Archives of Canada.



The head chief of the Ojibwas at Michipicoten in 1846, painted by Paul Kane. Royal Ont. Museum.

Were saluted on landing with peals of thunder from the Cannon ranged on the banks, and were politely received by Mr. Keith who was watching our arrival, accompanied by Mr. [Alexander] Christie, (Chief Factor) from Moose; Mr. McBain [John McBean] (Chief Factor) from Lake Huron; Mr. Nicol Finlayson (Clerk) from Moose; & Mr. Cochrane Storekeeper to the Establishment.

Rooms were prepared for us, but we preferred encamping, wishing (if possible) to avoid sleeping within doors during the Voyage. Our tents were therefore pitched behind the house, and two rooms given us, in an outer building for the luggage; in which Mrs. McTavish & Myself sat during the day, while the Gentlemen were engaged in matters of business. Supped at 8 O'clock at the public Mess Table, and retired to our Tents early, anticipating with pleasure the prospect of remaining in bed till 7, instead of rising at 2 O'clock.

17th Arose much refreshed from a comfortable night's rest, and joined the Gentlemen at breakfast at 9 O'clock. They, being too much occupied to afford us their company, we (Ladies) equipped ourselves for a walk thro' the woods, and along the Shores of the Lake, where there is a fine Sandy Beach, covered with Pebbles, but we were not fortunate enough to find any worth preserving, though some have been collected here, of great beauty.

The Green which surrounds the Establishment, is occupied by the Stores; & the Huts, & Tents of the Indians, who appear quite happy & contented, walking about, fishing, & chopping wood—Some are Copper colored, others of a dirty yellow, and some few of the Women & Children are nearly as fair as Europeans. Their dress consists of Trowsers of different colored cloths (generally Scarlet) worked with Quills or Beads, and Blankets, which they put over their heads, and wrap round their Bodies, for their outer garments: they wear their hair cut short over the forehead; and the back part which is very long, either hangs loose, or is tied in a bunch behind.

Dined at 5 O'clock, and set off to walk in a contrary direction to that which we took in the morning: and after scrambling up Mountains, breaking down fences, and brushwood which obstructed our path arrived at a beautiful Waterfall, situated in the most romantic spot that can be well imagined, and which made the hills re-echo with its sound.

18th, 19th, 20th Nothing worthy of notice occurred during these 3 days: the Gentlemen were so busily engaged with matters of business, that we saw very little of them except at meals. The Servants were occupied in washing, cooking, and other necessary arrangements for a continuation of our voyage and I contrived to kill time by reading, drawing, writing & chatting with Mrs. McTavish who amused herself principally in the study of "Meg Dodds" on Cookery, from which we benefited by some delicious Cakes she succeeded in making.

21st Arose at 2 A.M. and parted with very great regret from our friends Mr. & Mrs. [J. G.] McTavish whose journey was near its close; they being within a few days march of their future residence "Moose Factory," the principal Depot of the Compy. in the Southern department.

Their Canoe was now occupied by Mr. Christie, and my cousin Thomas who were to accompany us to Red River Settlement, our first resting place, and from thence to York Factory the Grand Depot of the Compys. territories northward. The morning so intensely cold, that the paddles and sides of the Canoe were thickly crusted with Ice; likewise a very heavy swell in the Lake.

22nd Embarked at ½ past 1 A.M. the weather still boisterous and very cold. Travelled till 2 P.M. when we came to an Establishment called the Pic, on the banks of a large river of the same name. Here I was highly entertained by a visit from a band of Indians who had been waiting our arrival several days. We were seated at the end of the room, in order to receive the party, who came in without the least ceremony: some placed themselves on the floor in their usual position of resting on their heels: others leaned against the wall, and such as could not gain admittance crowded into a small passage at the entrance of the house.

The Chief (who took possession of a Chair the moment he entered) was dressed in a short Coat of blue cloth, and scarlet cloth Stockings worked with different colored Beads—very large rings in his ears, a silver ornament suspended from his nose, and an immense crooked Knife stuck in a leathern girdle round his waist, his feet were bare. Those of inferior rank were chiefly attired in Blankets; and all had their eyes painted with red ochre.

The Chief, after making a speech, presented some furs, for which he received a large keg of liquor, some Tobacco, red & blue cloth, Beads, a Blanket for his Wife, and a coat for his child, a little creature about 5 years old, who was present, and who expressed his joy in the most lively manner: stripped himself, put on his new dress, laughed, clapped his hands, & danced with real delight. They were then regaled with a glass of wine all round, and took their departure apparently very well satisfied.

We remained here about two hours, and re-embarked under a salute of small arms from the Indians; but had nearly swamped our Canoes within sight of the Fort: as at the junction of the river with the Lake, a very high, short, broken swell was occasioned by the current of the river meeting the heavy Sea, rolling in from the Lake, into which we were hurried: but to get out of which, great address and good management were required, as every Sea threatened to engulph us, and several broke in, giving us a complete drenching. Encamped at 9 O'clock, in a beautiful spot, surrounded by wood, and perfectly sheltered from the wind, which was bitterly cold, with a powdering of Snow.

23rd Embarked at ½ past 1 A.M. Breakfasted at 9 O'clock on a dry, sandy Beach, on the banks of La Riviere Blanche. . . .

Encamped at 7 O'clock; the wind being too high for the Canoes to make a long Traverse, which was before us. Went to bed very soon after landing, as we were to start again at ½ past 11. Embarked at the time appointed, after great difficulty in loading the Canoes, owing to the swell of the Waves on the Beach.

24th On awaking this morning, I was surprised to see so thick a coat of Ice on the Lake, that the men were obliged to break it with poles, for the Canoes to pass. Breakfasted in the outer passage of the Pays Plat. Travelled till about ½ past 6 P.M. when we put ashore for the purpose of dressing, previous to landing at Fort William where we intended to remain that night & the following day. Arrived at 7 O'clock, and were very kindly received by Mr. McKenzie, the Gentleman in charge of the Fort. This Establishment is of considerable extent, and some years ago, was the principal Depot of the North-West Company: but the buildings are going fast to decay, and it is now of very little importance in comparison to what it then was. Our Tent was pitched on a Green in the centre of the Fort, and being fatigued, we retired soon after 9 O'clock.

25th Arose between 7 & 8 O'clock and took a walk round the Fort before Breakfast. In the course of the morning we were visited by an old Indian Chief called the Spaniard, who came to present his Furs. He was the most lively, good-tempered looking Indian, I had met with; appeared both surprised & pleased at seeing me, and shook me very cordially by the hand several times. He was very gaily dressed in a Scarlet Coat, with black velvet cuffs & collar, edged with gold lace—a White Calico Shirt ornamented with a frill about ½ a yard in depth—cloth Stockings worked with beads, an immense Sword dangling by his side, and an enormous cocked hat, surmounted by a profusion of different colored feathers. He was accompanied by his son-in-law, who was dressed in a similar style, tho' his clothes were of plainer colors—he was a young Man, and paid great deference to his Father. After making a long speech, and receiving a present of Liquor, Tobacco, Beads & Cloth, they took their departure, apparently very well satisfied.

The large Canoes, in which we left Montreal, were here exchanged for smaller, (or North Canoes) in which we were to embark the following morning.

26th Left "Fort William" between 2 & 3 A.M. Breakfasted at the Paresseux Rapids: the Weather fine & warm. Made the "Mountain" Portage, about ¾ of a mile in length, from which, is seen one of the finest Falls in the Country—it is upwards of 100 feet in height dashing over stupendous rocks; boiling, foaming, and roaring with the noise of Thunder—the Spray flying in all directions appears studded with precious stones, and surrounded by thousands of Rainbows. . . .

27th Encamped at 8 O'clock, on the best spot we could find, after much examination: but bad enough, as it was covered with burnt wood, & fallen timber, and accessible only, by clambering over the men's shoulders, which formed a bridge across the deep, slimy mire, of which the bank is formed.

Fort William in 1865. From a water colour by William Armstrong. Canadian Breweries.

This abominable spot was surrounded by stagnant pools, from which our ears were assailed by the croaking & whistling of thousands of Bull-frogs: and here the Musquito first introduced himself to our notice, exerting his sting vigourously, and giving full employment to our fingers in allaying the irritation occasioned thereby.

28th Off at 2 A.M. This I may say was the most fatiguing day I ever experienced having walked between Breakfast & Dinner (under a scorching Sun) upwards of 7 miles, over the "Prairie," "Middle" & "Savanne" Portages, the last of which, deriving its name from its character, is formed of a bridge of Logs in a very crazy, & decayed state: so slippery, unsteady & uneven, as to occasion the greatest difficulty in crossing it.

This walk (if so it may be called, as it was an operation of 6 hours, of hopping, slipping & climbing) completely overpowered me with fatigue, and on arriving at the end I threw myself upon the grass, unable to move for some time.

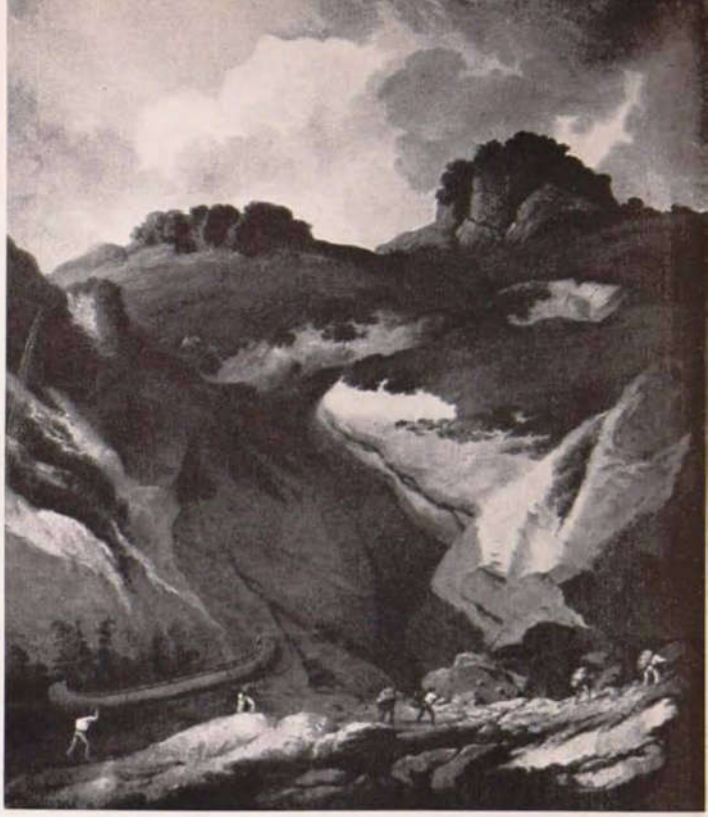
The Afternoon exceedingly wet, and uncomfortable, but it was cheering to know that we were now within the Territory of "Ruperts Land," as the Middle Portage is the height of land, separating the Waters which run into Hudson's Bay, from those which fall into the Gulf of St. Lawrence.

Descended the river Embarras about 2 miles, which takes its name from the frequent obstructions of wind fallen timber, which is carried down by the Spring floods: requiring the constant use of the axe, to cut a passage through it. Encamped on the edge of a filthy Swamp at ½ past 7.

29th Torrents of rain during last night, and a snow storm this morning, which prevented our starting till after breakfast, rather an unfashionable hour 5 A.M. Off at 6, and occupied until 11, cutting our way thro' this tiresome little river, which was completely choked up with Driftwood: when as ill-fate would have it, our Consort Canoe in following us round one of the points, formed by the winding course of the Stream, ran against a stump, which did not show itself above Water, tore up about 9 feet of its bark, and in a few minutes (altho' all the people were occupied in baling with every vessel they could get hold of from Hats downwards) was up to the Gunwales in water: but Providentially, the river was so shoal when she sunk, that no lives were lost, and we got to her assistance in sufficient time to save what was not perishable of the baggage: so that no evil was sustained by the accident, except the loss of half this day, (occupied in repairing the Canoe) and of a great portion of our Tea, Sugar, & Biscuit.

Employed from 11 till 3 O'clock putting our wreck in a "Sea worthy state," which was a very simple process; by introducing a piece of new bark, inside the damaged part, sewing it with the thin fibre of the root of a [Spruce] tree, and covering the seam with melted Pine Pitch, or "Gum," which rendered it perfectly water-tight.

We then entered Mille Lac; deriving its name from the thousand Islands it comprehends, and continued our route until ½ past 8 P.M. when we encamped, but without our



The Mountain Portage around Kakabeka Falls near Fort William, by Paul Kane. Royal Ont. Museum.

Consort, which thro' some accident had taken the opposite side of the Island, to that on which we put up, so that her passengers were supperless, the remnant of provisions, happening to be in our Canoe.

30th The rain & snow of yesterday had so completely soaked into our Clothes, that it was necessary to sit up till 11 P.M. drying them before the fire, when we laid ourselves down, but I had scarcely closed my eyes when I was roused by the well known, and (to me) unwelcome signal of "*Lève Lève Lève,*" and found on enquiry the time to be a few minutes after 12.

Embarked, and had just fallen asleep again, when we were obliged to start up for the purpose of crossing a very bad Portage; the dry parts slippery, from the frost of the former night, and covered with fallen Timber, and the miry portions (which were not a few) almost impassable. Over this rough & disagreeable road we groped our way in the dark, and found Mr. Christie & his party fast asleep at the farther end. I could not help thinking it the height of cruelty, to awake them at such an hour, having a strong fellow-feeling for them, as it was with the greatest difficulty I managed to keep my eyes open, and more than once fell on the slippery & uneven ground—not much ceremony was however observed, and in a very short time we were all again afloat.

Got to another Portage at day-break; where, out of charity to me, a fire was lighted, and Breakfast prepared; the most seasonable and welcome meal, I ever sat down to.

In starting from this Portage, we had a similar mishap to that which befel our Consort yesterday, as a Stump

caught the bottom of our Canoe, ripped up several feet of the bark and it required the utmost exertion to get ashore before sinking. I was fortunate in escaping a ducking, by being caught up in the arms of one of the men, and carried to a dry spot.

31st Started at 1 A.M. Entered the river Maligne at 6, ran several Rapids in fine style, and got into Lac la Croix at 12 O'clock. Crossed one of its Bays about 10 miles wide, and descended the river Michan, which is not the usual route, but much shorter; yet seldom or never passed by Whites, being considered dangerous. The other route is understood to be within the American territory, and this, to be the line of demarkation: being the great outlet of the Waters running from the height of land thro' Lac and Riviere la Pluie, into Lac des Bois. Mr. Simpson therefore in order to ascertain its state, mounted its current last Fall, in low water, and descended it this Season in high water, and considers it not only a practicable, but a safe route in any state, either for Boats or Canoes.

We made 3 Portages, and ran several Rapids, which before entering had rather an alarming appearance; but once over the brink, the rapidity with which they were passed, left no time for apprehension; on the contrary, I could but admire the address of the Bowsman in leading our beautiful & airy bark, thro' the Breakers, Whirlpools, & Eddies occasioned by this great body of water pent up between immense walls of Rock, and hurled over huge masses of the same material.

The river we had been descending, empties itself into a beautiful Lake of the same name: where we fell in with a large Camp of Indians attending a Sturgeon Fishery: they received us with a salute of fire-arms, and we replied to them by a present of Tobacco, which seemed to afford great satisfaction. Crossed a Bay of Lake Michan, and got into Lac la Pluie, where we encamped at 7 O'clock, drenched to the skin, by the spray of river Michan, and a down-pour of rain which had continued since 12 O'clock.

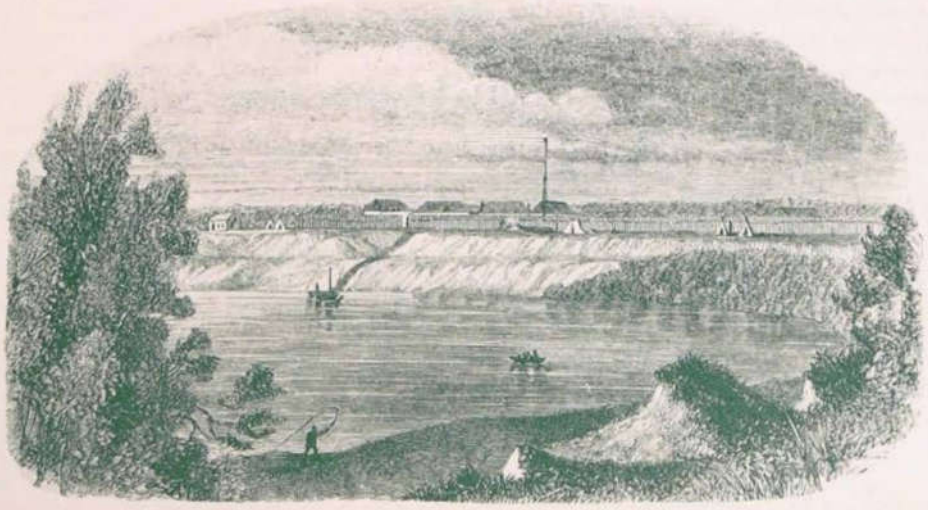
June 1st The rain fell in torrents all night, and until 9 A.M. today: we however were afloat again at 12 P.M. Breakfasted at 8 O'clock on an Island in Lac la Pluie, and almost immediately after we re-embarked, our Canoe struck on a rock, and sustained so much damage, as to occasion considerable alarm; and it required the utmost exertion of the people to keep her above water, till she reached the Shore. We could receive no assistance from our Consort, as she had started a few minutes before us, and was out of sight; having doubled the point of an Island when the accident took place: & to complete our misfortunes we found on gaining the shore, that we had neither Bark, nor Pitch on board, to repair the damage, the whole of our stock having been consumed in making good the injury we sustained two days ago. Necessity, however, is the Mother of Invention: a piece of Oil-cloth answered as a substitute for bark; a piece of Twine for "Wattap," (or sewing roots) and the whole smeared over with Butter inside & out, (instead of Pine Pitch) which stopped the leak sufficiently to enable us to proceed, till we reached the Establishment of Lac la Pluie at 12 O'clock, just as a Canoe was being manned to go in search of us: it being apprehended that some accident had occurred from our non-arrival.

At the Establishment we found Mr. [J. D.] Cameron, and Mr. [Thomas] McMurray, who received us with a degree of kindness, which satisfied me that our welcome was cordial, and unaffected. The Establishment is delightfully situated, on the East bank of the river, overlooking a beautiful Waterfall to the South, also the American Post, on the opposite side, and a long reach of this noble Stream to the North.

While Mr. Simpson & Mr. Cameron were transacting business, Mr. McMurray beaued me round the Fort, and Garden; and old & weather beaten as he was, he surpassed all the Gentlemen I had met with in these Wilds, as a Lady's Man; but altho' our walk did not occupy an hour, it quite exhausted all his fine speeches, and the poor man seemed as much relieved when we returned to the house, and were joined by Mr. Christie, as if he had just been freed from an attack of the Night-Mare.

Dined on fresh Sturgeon, and dried Beaver Meat; and continued our route at 5 O'clock, having exchanged our damaged Canoe, for one, new off the Stocks. ◆

Frances Simpson's canoe journal, as she proceeds on her voyage to York Factory, will be continued in the next issue.



Fort Frances as it appeared in 1857. From H. Y. Hind's "Canadian Red River Exploring Expedition."

WINGS ACROSS GREENLAND

by F. H. Ellis

Flight No. 1: P. D. Cramer (right) and B. R. J. Hassel' with their Stinson-Detroiter at Cochrane, Ontario—only stop between Illinois and Greenland. H. A. Wills

Between 1928 and 1931 "Shorty" Cramer made three attempts to fly across the Atlantic by way of northern Quebec and Greenland. Finally he made it—but not as far as he had hoped.

WHEN pilots B. R. J. ("Fish") Hassell and Parker D. ("Shorty") Cramer decided to have a stab at conquering the Atlantic by air in 1928, they planned differently from others before them. They considered that it would be more feasible to fly via Canada, Greenland, and Iceland to Europe, believing it to be a safer route than the more direct, but non-stop way—particularly from a commercial point of view.

The two American airmen left Rockford, Illinois, on August 16, in a single-engined, wheel-equipped, Stinson-Detroiter, named the *Greater Rockford*, for the city which had subscribed a $30,000 fund to finance the undertaking. Six hours and forty minutes after the takeoff, they landed at Cochrane, Ontario—their only stop between Rockford and Greenland. In a wheel-equipped machine, over wild and inhospitable country, their flight stands as a brave accomplishment. Had they suffered a forced landing and crack-up, their chances of survival would have been just about nil.

The Mount Evans base camp of the University of Michigan Greenland Expedition was their objective. The camp was situated on Stromfjord Arm, about half way up the west coast of Greenland. A very accurate course was kept, and when they passed over the Hudson's Bay post at Rupert's House, on James Bay, the airmen circled the buildings to check their whereabouts.

Because of local storms of which they had no previous knowledge, they were obliged to abandon their prearranged route. From that time on, they did not transmit any radio signals, as they would not have been accurate in giving their approximate position. The radio carried was not one over which verbal or morse code messages could be transmitted, it simply gave out automatic, long buzzing sounds to operators receiving the signals, and was used simply as an approximate check with their flying time to place their whereabouts while in the air.

When the short sub-arctic night settled over the land, the plane was far over the Quebec wilderness, heading for Ungava Bay. Daylight caught them crossing Hudson Strait, with Cape Chidley astern in the misty dawn. (Aircraft of the Canadian government Hudson Strait Expedition had flown in this vicinity during 1927-28, from nearby established bases, as fully described in the *Beaver* of March 1944. By the time Hassell and Cramer made their flight, the Canadian planes were returning south aboard ship, their ice survey missions having been completed.)

Experiencing clear weather, the American airmen were able to check their position before the 550-mile, over-water flight to Greenland, and they had every hope of success in crossing Davis Strait to reach their destination. They were obliged to resort to visual identification of landmarks, as their magnetic compass had become completely useless due to the nearness of the magnetic pole.

Greenland was clear of fog when they crossed the coast line, but they did not have the faintest idea of their exact position when they reached the welcome landfall. The expedition's H.Q. was situated at the "base of a mountain wall," marked on their map. It proved to be the proverbial needle in the haystack. Aimlessly they flew, seeking their goal, finally going far up one long arm of the sea, in an endeavour to find any suitable landing site, as fuel was low.

Frank H. Ellis, of Hollyburn, B.C., has made a special study of early aviation in Canada, and during the past few years has contributed several articles on this subject to the Beaver.

At last they found what appeared to be a fairly level area on the ice cap at the head of the fjord. There they set the Stinson down to a good landing, with 2400 air miles behind them since leaving Cochrane. It must surely have seemed a million miles away to the two stranded airmen, alone, and lost.

They had a fair idea of the direction in which the base might be, as they were equipped with a splendid map of the area. After careful check, they believed they might reach the expedition's base in a day's walk, but they were in for a heavy disappointment. Their expected short trek stretched into *fifteen* lean and weary days.

Hiking over the glacial ice to the coastal area, they were forced time and again to negotiate deep crevasses, many times being obliged to backtrack for miles before a crossing could be made. Rations became dangerously short. As the days passed, they cut themselves down to five ounces of pemmican each a day. Ptarmigan were fairly plentiful, and they were able to shoot a few to add to their scanty fare. Several times, reaching unscalable cliffs, the two men were obliged to strip and swim across glacial streams, carrying their clothes and few belongings bundled on their heads.

So they plugged along, following the edge of the ice cap as closely as possible. Once on level tundra, Cramer became mired in a quicksand, and was only rescued with difficulty by Hassell, who came to his assistance with a rope made from clothing tied together.

The two airmen knew that the expedition, in charge of Professor W. H. Hobbs, was due to leave its base on September 1. They were really beginning to get worried when that date found them on the side hill of a wide fjord. As they pondered whether to try swimming across, rather than lose many precious hours going around, they spotted what appeared to be a small boat, just a speck in the distance. They sent smoke signals up at once in the hope of attracting its occupants, but it soon vanished from sight. After an hour's watching, another speck became visible, and they risked one of their precious shells as a signal shot. Shortly after, a small outboard-powered boat came towards them, and in it were two members of the expedition staff, who told the airmen that it was thanks to the keen eyesight of several Eskimos, who had spotted the smoke sent up, and informed Professor Hobbs, that the rescue was so quickly effected.

The "Greater Rockford," 16 years after its abandonment on the ice cap. (This photo—to which a tale of rare coincidence belongs—may be upside down.) B. R. J. Hassell

Without any possibility of salvaging their machine, the airmen were obliged to abandon it on the icecap, returning to the United States with the members of the expedition who had planned to leave camp by the 4th.

Before the *Greater Rockford* had left the Illinois city, the wife of Professor Hobbs had entrusted a letter to Hassell to be delivered to her husband in Greenland. The first thing the pilot did upon reaching the base camp, was to hand the letter to the expedition's leader. It thus became an historic missive, being the first piece of mail to be flown from the United States to Greenland.

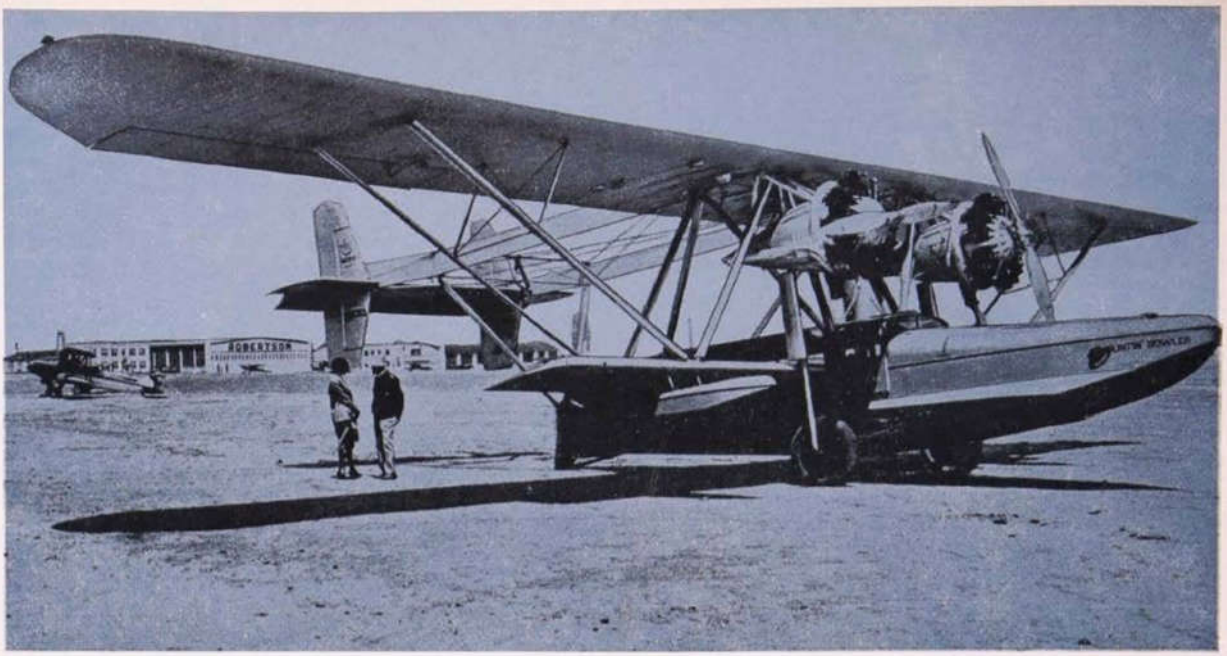
During World War II, an immense amount of flying was done over Greenland. During one reconnaissance mission in 1944, an American army pilot spotted the wreckage of a plane, upsidedown on the icecap. Circling low, he took photographs, believing the craft might belong to some fellow airmen who had suffered a crack-up. When the pictures were printed, a real mystery developed, for they showed the wreckage to be of a plane of early vintage. Eventually the discovery reached the attention of the commanding officer of the U.S. Army Air Force base at Goose Bay, Labrador. He was Lt. Col. B. R. J. Hassell. One look at the photographs, and he knew the answer. For sixteen years, buffeted by the eternal winds of the icecap, his old Stinson had lain there, a lonely derelict of the first attempt to fly from the United States to Europe, via the Greenland route. As a memorial to the effort, it is still there today.

After such a near brush with death, it might be expected that further attempts to fly to Europe would have been abandoned by both airmen, but not so Cramer. Less than a year later, he was on the wing again with two companions, on another attempt to fly to Europe via the northern route, this time in a twin engined, Sikorsky amphibian flying boat.

This second effort, sponsored by the Chicago *Tribune*, had every promise of eventual success. The pilot chosen was Robert H. Gast, Cramer being co-pilot and navigator. The single passenger aboard was Robert Wood, aviation editor of the *Tribune*. The publisher of the newspaper gave the machine the name of *'Untin' Bowler*, which was supposed to mean a hat worn in England for foxhunting, the H and the g in "Hunting" being left off in an effort to bring it closer to the fancied English pronunciation.

Berlin, Germany, was planned as the eventual destination, over a route by way of Canada, Greenland and Iceland. The three airmen took off from Lake Michigan, left Chicago behind at 8:45 a.m. on July 3, 1929, and made a short hop to Milwaukee, before flying on to Canadian territory, via Sault Ste. Marie, where they landed to re-fuel. The same day they went on to reach Rupert's House, and became the guests of the H B C post manager overnight.

The next day was not good for flying, and although they set off in the hopes of making a good distance, they were only able to fly as far as the Hudson's Bay post at Great Whale River, on the south-east coast of Hudson Bay. There they were obliged to land as a dense cloud overcast spread a deep gloom over the entire country.



Flight No. 2: The Sikorsky amphibian at Chicago before taking off for Europe. She too came to grief. The name 'Untin' Bowler refers to a hat. Sikorsky Aircraft Corp.

In some respects, luck was with them on the 7th, when they were able to carry on over the Quebec wilds, and across Ungava Bay. However, on reaching the Hudson Strait shoreline, they could not at once locate their objective of Port Burwell. Not until the 9th did the Sikorsky reach that post, where the airmen learned to their chagrin that they had flown close past on the 7th and that the residents had clearly heard the sound of the engines. They had landed fifty miles further east, to spend a lonely night and day by the side of a desolate tickle (cove), waiting for weather to clear. While there, they also spent an anxious time when masses of ice ground against the hull of their ship, during an ebb tide. Fortune favoured them for a while, in allowing them to get away from the tickle without serious damage.

But while at Burwell, with the plane anchored off shore awaiting better weather, a strong wind drove masses of ice in from the strait. On the 13th the storm increased in violence, and great chunks of ice began to smash against the hull. The strenuous efforts of the three fliers and a number of Eskimos were of no avail in the unequal fight, and when the anchor ropes parted, they were obliged to give up the struggle. Shortly after, heaving ice floes stove in the side of the *'Untin' Bowler*, and she sank some two miles out on Hudson Strait. So the cold northern sea claimed another stout ship, and the disheartened airmen were obliged to return to Chicago by regulation means of travel. It was an unfortunate affair, for men and machine were of top calibre.

After a second disappointment such as he suffered, Cramer might well have been forgiven if he had tossed in the sponge; but he had made up his mind to fly to Europe by way of Greenland, so for a third time he resolved to make the attempt.

By this time, officials of various commercial aviation companies were beginning to take a real interest in flights across the Atlantic, purely as a business venture. Undoubtedly they had been watching closely before this, but not until July, 1931, did plans formulate in an actual survey flight.

Backed by Transamerican Airlines Corporation, a subsidiary of Thompson Aeronautical Corporation of Cleveland, Ohio, a Bellanca seaplane was put into service. Powered with a Packard diesel radial engine, it was something new in Atlantic endeavour, as all previous craft, successful or otherwise, had been equipped with conventional gasoline engines. The flight was given no prior publicity, and the seaplane had no special name allotted to it, except that it was termed "Survey Plane No. 1."

Parker Cramer was chosen as pilot, and his navigator and radio operator was Oliver Paquette. A Canadian, Paquette was born and raised at Sudbury, Ontario, and after schooling there, he took up wireless as a profession, later to enter the employ of the Canadian government. He had already been associated with several land survey and exploration trips in the north, and was loaned to T. A. C. at the special request of Cramer, who had met him at Cochrane during the 1928 flight which had ended on the Greenland icecap.

The place of departure of this third flight of Cramer's was Detroit, with Copenhagen, Denmark, the planned destination. The two airmen set off from the Detroit river on August 28, 1931, their first stop being unscheduled. They landed on Abitibi Lake, near Lowbush, Ontario, to enable Paquette to pay a brief visit to his wife and parents, then living in nearby Cochrane.

The following day the airmen flew on to the Hudson's Bay post at Rupert's House, leaving there on the 30th, to reach the post at Great Whale River the same day*. On August 31, they winged their way over northern Quebec to Wakeham Bay, on Hudson Strait. After an overnight

*The then district manager remembers them coming in to refuel, but with no means of paying for it and no credentials. Just by luck the post happened to have the right type of fuel.

stay at the Hudson's Bay post, they carried on across the strait, to land at the post at Pangnirtung, on the coast of Baffin Island.

The long hop across Davis Strait to Greenland was made on Sept. 2, Holsteinsborg being their destination. Their arrival came as a great surprise to the small population there, who had no knowledge of their coming.

The engine was then given a thorough check for the long flight over the Greenland icecap, an historic flying feat which the airmen accomplished on Sept. 5. They went over the vast ice fields at an altitude of 9000 feet, in five hours flying time, landing on the east coast of Greenland at Angmagsalik. Shared by an American and a Canadian, that fine effort will go down in world flying history as the first flight ever made across the great ice barrier of central Greenland.

Things were going well, and faced with the long over-water hop to Iceland, the two men had every expectation of success. They left the rugged shores of Greenland behind on Sept. 7, covering the 450 miles to Reykjavik without undue incident. Not satisfied with that, they quickly re-fuelled, and set off again, this time for the Faroe Islands, landing there at Thorshaven, Sidero Island, late in the afternoon.

Dire peril beset them on this lap. They were forced down on the open Atlantic by a cracked cylinder. Cramer put the craft down safely, and after an emergency repair, took off again from the huge swells which were running—a feat that showed him to be a master of his trade.

Early on the 9th the daring pair were off again, reaching Lerwick in the Shetland Islands by 10:00 a.m. They wasted little time, but filled up the tanks, and sped onward again, with but a single lap to go to reach Norwegian shores, and so down the coast to Denmark, and Copenhagen.

Unhappily, such an ending was not to be. Immediately they were on the wing, terrific storms converged along the route they were following. A radio message from Paquette at noon stated they were in sight of the coast of Norway, and that their arrival at the Danish capital would be around 4:30 p.m.

That was the last the waiting world ever heard of them. Time wore on, and the great throng at Copenhagen, there to greet them, finally were obliged to return to their homes. A huge celebration had been planned to welcome the airmen from the New World, and a medal from the Danish Aeronautical Society was in readiness for presentation to Cramer.

Hours extended into days, and it was realized that disaster had overtaken them in their hour of triumph. Late in September, the British trawler, *Lord Trent*, sighted and salvaged the battered remnants of the Bellanca, but the sea never gave up the gallant airmen.

In March, 1932, a strange aftermath occurred. Several miles off the Orkney Islands the crew of a Danish trawler spotted a soggy bundle afloat. The sea was calm and salvage was easy. When turned into the Consul at Amsterdam, the package was found to contain personal papers of Cramer and Paquette. The precious belongings had been placed with a number of buoyant flying instruments, which had kept them afloat for seven months. The stress and difficulty of accomplishing that final act, with their aircraft tossing about in tremendous seas, while being assailed with the bitter heartbreak of defeat, and oblivion before them, was heroism of the highest order. ◆

Flight No. 3: Cramer and Paquette with their Bellanca seaplane powered with a Packard Diesel engine, in which they crossed the Atlantic in 1931.
Trans-American Airlines Corp.

EARLY NORTHERN SURGEONS

by Ross Mitchell, M.D.

Concerning some of the earliest predecessors of Dr. John Rae in Rupert's Land.

A late seventeenth century pharmacy is depicted in this frontispiece of Barckhausen's "Synopsis of Pharmacy."

THE archives of the Hudson's Bay Company, faithfully kept for so many years and now being made public through the Hudson's Bay Record Society, unveil many points of interest to medical eyes. On looking over the four volumes of the H.B.R.S. dealing with the early years of the Company, 1671 to 1694, one notes the careful planning and the evident concern of the General Court and of the Committee for the health and safety of their employees either on shipboard or at the various posts in Hudson Bay—Charlton Island, Charles Fort, Port Nelson, Albany, and Moose Factory.

The known minutes of the Company (H.B.R.S. Vol. V) begin with October 24, 1671. It is possible that there were minutes of earlier meetings; if so, they have disappeared. The first medical minute occurs on May 21, 1672. The committee members at that time were Sir John Robinson, Lord Lieutenant of the Tower, and Mr. (afterward Sir) John Kirke, and appropriately the meeting place was the Tower of London. The minute reads: "That Mr. Pelling the Apothecary bee Spoken to about the Chirurgeons Chest; hee having overrated the thinges to bee provided at least one third pte." The suggestion is that the apothecary, if not looking after his own interests rather than those of the Company, was at least extravagant. The succeeding minute is of great interest. "That there bee payd to Mr. Romulus the Chirurgeon to Stay in the Countrey tenn poundes to bee deducted out of the first wages due to him."

Mr. Romulus was the surgeon of the ketch *Nonsuch*, Captain Zachariah Gillam master, in 1668. It was the success of the venture of the *Nonsuch* into Hudson's Bay that led to the granting of the Royal Charter. Dr. Grace Lee Nute, the Minnesota historian who has written the definitive life of Radisson and Groseilliers, has identified "Mr. Romulus" as Pierre Romieux, *dit* Romulus, a native of Trois Rivières, the home town of Radisson and Groseilliers. It is not surprising that those two, who in the adventure of 1668 were the experts, should have brought with them their fellow townsman. The solid John Bull clerk of the Company with a little classical knowledge, who wrote "Mr. Gooseberry" for M. de Groseilliers, may have also "anglicized" Pierre Romieux to Peter Romulus. So the first surgeon of Rupert's Land was a French Canadian, but of his later history we know nothing.

There are two brief references to Mr. Heslop, surgeon. On March 5, 1674, there is an order that he be paid £25 on account of his wages until further order, and two weeks later he was paid his wages in full. Probably he was only the surgeon on a Company's ship to the Bay and return.

On March 19, 1674, there is another minute regarding a third surgeon, Walter Farr, whose application to go as surgeon and apothecary and to stay three years at the Bay, brought on an animated discussion. In his application Farr had raised the question of private trading, but the Com-

Dr. Ross Mitchell, well-known Manitoba surgeon, is an authority on western Canadian medical history, and past president of the Manitoba Historical Society. His contributions to the Beaver *include articles on Dr. John Bunn, Chief Factor John Rowand, and Dr. John Rae.*

mittee, headed by the Earl of Shaftesbury, would have little of it. They ordered that "whatsoever private trade Shall bee allowed Shall notwithstandeing bee brought into the Companyes warehouse for the use of the proprietors, & Soe bee delivered to them, & no other private trade to be allowed." Farr was employed at £4 per month for three years, and on June 1, 1674, a minute records that Captain Shephard was to receive on board the *Shaftesbury* "Wm. Lydall Esqr. Governour who wee order Shall bee treated with respecte & Walter Farr chirurgeon agreed with at £48 p. annum, John Whitfield cooke at £20 p.a. John Malin at £20- Charles Elmore at £15- & Robert Palmer the governors Servante at £12 p.a." Captain Nehemiah Walker had treated Charles Bayly, the retiring Governor, with anything but courtesy, hence the injunction to Captain Shephard.

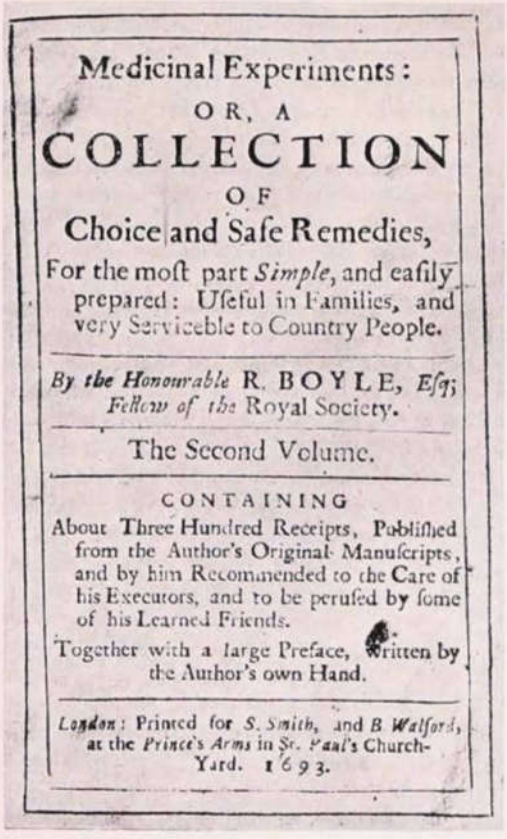
As Sir John Clapham, in his introduction to Vol. V, *Minutes of the Hudson's Bay Company 1671-1674*, points out, there is much of interest to the economist and social historian recorded therein. Thus in 1674 the Governor received £100 a year with all found, the surgeon £48. A boatswain's month was worth ten shillings less than a resident surgeon's and ten shillings more than a ship's surgeon which was £3. A smith, a cooper, a cook and a bricklayer each got £20 a year; a tailor and a sawyer got £15. For comparison, one may note that a twenty-five ton vessel was bought by the Company in 1672 for £130.

Walter Farr apparently made a good impression on the Governor and Committee. In January 1680, it was decided to appoint a deputy governor. The choice lay between Farr and James Knight who had entered the Company's service in 1676 and who was the founder of Churchill, Manitoba. The choice fell on Walter Farr at 100 marks a year, and on May 26, 1680, there is a minute that letters and instructions should be addressed to "John Nixson, Esqr, Governor, Mar. Water Farr Depty. Governor and Mar. John Bridges cheife Factor and the rest of the Councell in Hudsons Bay." On April 29, 1681, it was ordered that all things necessary for the said Mr. Farr were to be sent on the ship *Diligence*, Capt. Walker. By November of that year he had returned home and he was allowed to keep certain beaver glands which he had brought with him. From these glands castoreum could be obtained which had a considerable value. For many years it was included in the British Pharmacopeia but has recently been deleted. It is an oily viscid substance once in repute as a remedy against hysteria, but now it serves, usually in the form of an alcoholic extract, for blending perfumes. Walter Farr continued to serve the H B C in company with Mr. Pelling or Pellyn and Mr. Watts, apothecaries. His experience at the Bay enabled him to advise on what medical supplies were necessary. His post as deputy governor was taken by James Knight on May 11, 1682.

On May 18, 1682, two new surgeons were engaged, John Calvert and Philip Bayly. Calvert entered into the service for three years at £3 per month at Port Nelson and had two months' pay in advance, Bayly was to be surgeon on board the *Prince Rupert*. Both had a small role to play in international politics. Radisson left the Company's service in 1675 and served with the French navy in 1678. In 1682 he headed a trading voyage from Canada to Port Nelson, and there outwitted both Captain Benjamin Gillam, who was in charge of the *Bachelor's Delight* operated on a licence from the Governor of Massachusetts, and the H B C under John Bridgar. He seized the ship and took possession of Port Nelson. The Hudson's Bay Company protested, and the matter was discussed on the diplomatic level between England and France. The Company claimed that Radisson had the backing of the Governor of Canada and indirectly also that of the King of France. To support the claim the Company tendered depositions signed by Calvert and Bayly regarding the seizure by Radisson of Port Nelson.

On March 5, 1683, John Clarke, "Chyrurgion," was entered on the Company's service for four years at 50s. per month, his wages to begin on his arrival at Hudson Bay, and on March 28 of the same year Edward Evens, Chyrurgeon, was engaged at £3 per month for four years. On April 23, 1683, Mr. Watts, the apothecary, was ordered to provide medicines for Hudson Bay to the value of £8 "and noe higher." Mr. Evens, the surgeon, was to consult with him as to what medicines should be sent. On the same day Edward Evens took his oath of fidelity to the Company.

Title page of a collection of pharmaceutical recipes written by Hon. Robert Boyle, "the father of chemistry" and a shareholder of the Hudson's Bay Company from 1675 to 1692.



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London: Printed for *S. Smith*, and *B. Walford*, at the *Prince's Arms* in *St. Paul's* Church-Yard. 1693.

From 1679 to 1683 John Nixon was Governor of Hudson's Bay, succeeding the first Governor, Charles Bayly. In a report of 1682 Nixon referred to John Raynor (Rainer or Raynard), surgeon, thus: "Capt. Powers, and doctor Rainer, both of them so drunk as beasts, who abused him [Charles Bayly] after such a gross maner that I was ashamed to see their cariage towards their ould governor." He mentioned also Benet Smith (Smyth) another surgeon in the Company's employ who appeared to meet with his approval for he included him among the deserving men who were presented with otter skins to make caps or mittens.

Another surgeon received his emphatic endorsation: "I recommend into your Honours favour Mr. John Ker, chyrurgion of the *dilligence*, one who hath been serviceable to me, and to youre men, . . . and I would you could get him into youre service, he [is] fit for youre tourne, in divers respects, both for his calling, and pen, and good government of himselfe." John Ker (Kerr, Carr) was evidently a Scot for Nixon goes on to say that Ker could inform the Committee how they could get men out of Scotland who would both work harder and serve at cheaper rates than London men. On this recommendation John Ker was engaged at £50 per year from July 28, 1682. At a Committee meeting held on December 3, 1683, it was ordered that the warehouse keeper deliver to Dr. Kerr his "Coate of Beavor and a box of Castore" (castoreum) which Walter Farr had also been allowed to keep.

The "sober and industrious" young man, however, was no plaster saint. In one night he lost £14 at cards to Thomas Phipps, warehouse keeper at the Bay, who forwarded Ker's note to the London office. The Committee wrote to Governor Sergeant on May 16, 1684, in these words: "Take what care you can that our servants live sober lives in the Factorey and suffer none to play at Cards & Dice for their wages or for Goodes they take up in the Factorey which must be Deducted out of their wages to their & their poor families prejudice." They further instructed the Governor that they would not accept and pay bills unless they were signed by him, and before signing he was to inquire how the debt was contracted. If through gambling he was not to sign.

In Governor Nixon's report which covers pages 239 to 304 of Vol. VIII, he mentioned provisions which could be obtained at the Bay such as geese, turnips and coleworts (cabbage). All of these, he pointed out, were very refreshing to the men, especially to those who had recently landed, many of whom were sick of scurvy. Scurvy was the disease that particularly beset sailors and explorers. It almost destroyed Jacques Cartier and his men, wintering at Quebec in 1535, until a friendly Indian told them how he had cured himself by drinking a decoction of spruce bark. In 1619 Jens Munck of Denmark was obliged to lay up his two ships with twenty-eight men in Churchill river and winter there. One by one the men died of scurvy until by June, 1620, only Munck and two companions were alive and only by sucking the roots of every green sprout within reach were they enabled to have strength enough to sail away on one of the ships. It is to the credit of the Hudson's Bay Committee members, at a time when treatment of the disease was only empirical and not based on science, that so few of their employees at the Bay died of scurvy. In contrast, scurvy was occasionally rampant in the Royal Navy. On Lord Anson's voyage around the world (1740-1744) seventy-five percent of the men were affected. In 1795 the safety of Lord Howe's fleet was seriously endangered by an outbreak of the disease. In that year, on the recommendation of Sir Gilbert Blane, lime-juice was introduced into the Navy, and the incidence of the disease fell precipitously. Years passed before the provision of lime-juice on British merchant ships was made compulsory. It was this practice which led to British merchant sailors being called "limeys" by their Yankee brethren.

Birch's *History of the Royal Society* (III, 46) quotes Captain Gillam on what the country of Hudson Bay could produce. In summer wild strawberries, gooseberries and cranberries in plenty could be gathered and spruce beer made from "firr trees, which last kind of tree hath an excellent turpentine on its bud, which boiled in their beer they found very wholesome, and restoring them to strength and vigor when they looked pale and were sick and weak." The stores sent out included prunes and raisins as well as lime-juice. In the gardens around the factory, radishes, lettuce, peas, mustard, cabbage and turnips were grown. Thomas Gorst wrote in his journal on March 31, 1671: "Wee sowd Peas & Mustardseed which came up well enough for ye time we stayed there." The Company's men were allowed three quarts of beer per day, some of which was malted at the various factories. The other provisions were bread, beef, flour, pork, currants and other fruit, pease, butter and cheese, brandy vinegar, oatmeal, onions, salt and lime-juice, in all a well balanced and comprehensive diet. The surgeons knew nothing of Vitamin C or ascorbic acid, but they had learned from experience the value of green vegetables, fruits and fruit juices in preventing scurvy, and it is probable that men such as Walter Farr and John Ker on their return would advise the Committee regarding proper provisions for the men both on shipboard and in the country of Hudson Bay.

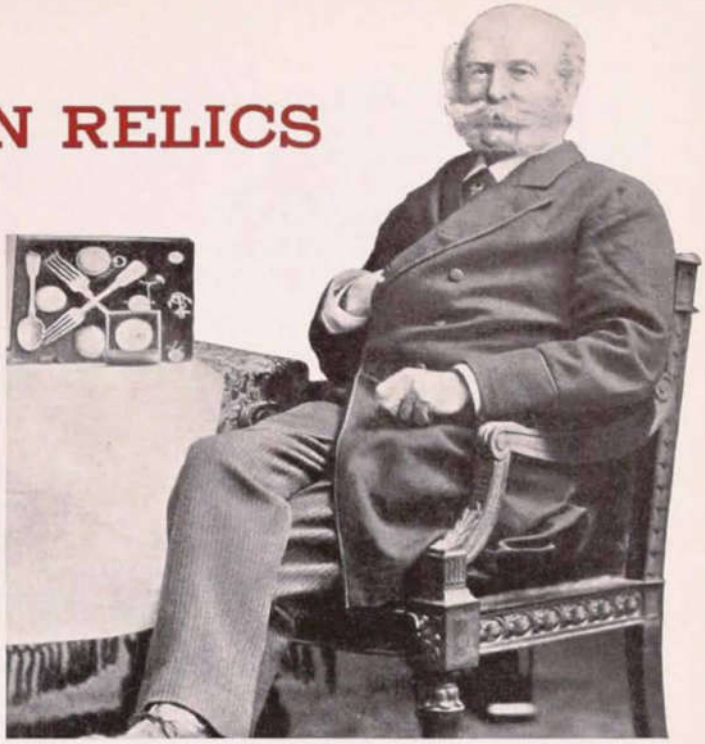
Another disease which might have been expected to strike sailors and passengers in the long voyages to and from the Bay was typhus or ship fever. Other names were jail fever and camp fever, and it was well known that filth and overcrowding were usually to be found in quarters where the disease was rife. Again to the credit of the Company there is no record of this malady occurring on its ships until 1813, when it broke out on the *Prince of Wales* conveying Selkirk Settlers from Sutherlandshire to the Bay. One of the victims was Peter Laserre, surgeon, an able young man from Guernsey.

In summary it may be said that the Company's arrangements, even in its earliest days, for the health and welfare of its servants were enlightened and progressive. For this, credit must be given to the Members of the Royal Society who were stockholders in the Company and also to the surgeons who were the best equipped among those at the Bay through their training and education. ◆

RAE'S FRANKLIN RELICS

By Robert Kerr
Keeper of Ethnology
Royal Scottish Museum

Some of the relics from the last Franklin Expedition which Rae bought from the Eskimos in 1854 are now on view at the Royal Scottish Museum in Edinburgh.



Dr. Rae with some of the relics described and illustrated here.

WHEN Dr. John Rae died at the advanced age of eighty, his widow left to Edinburgh University, where he had studied medicine and graduated as a surgeon, certain of his personal belongings, some relics of the Franklin Expedition, and a small but valuable collection of "curios" which he had collected from the Eskimo and the North American Indians. The University later transferred all these on permanent loan to the Royal Scottish Museum, where they are now displayed as an important part of the North American ethnographical collection.

Some of the more interesting of these Rae relics are a few items from the small stock of personal possessions which he took with him on his Arctic journeys. Among them is a well-thumbed and water-stained volume of Shakespeare's plays, which a note in the book tells us was one of a dozen small volumes taken by Rae to the Arctic in 1846*. Rae's party, the note goes on to say, wintered in a stone house, the mud plaster of which never dried, resulting in extreme dampness indoors for several weeks. Rae, busy with the important matter of laying in a winter stock of provisions, did not notice the state of his library. Eventually, as the weather grew colder, the books froze as solid as stones. The small cooking-fire could not be used for thawing them, for fear of their being damaged by dust and ashes. The ingenious Rae then made the experiment of taking this volume of Shakespeare into bed with him, and thawing and drying it by his own body-heat. The venture proving successful, his hardy companions helped him to thaw out the rest of his library in the same way.

Another book which Rae evidently prized is a small volume of sacred poetry which, in accordance with the fashion of the times, was given to him by Miss Franklin, Sir John Franklin's only child. It bears on the fly-leaf inscription "Mr. Rae, with Miss Franklin's kind regards and best wishes, 23rd March, 1848." Here too are Rae's gold watch and chain, as well as another of his constant and indispensable companions on his Arctic travels—his "housewife," containing needles and thread, tape, buttons, scissors, thimble, and other necessities for "making and mending."

* See page 35

Below: The spoon and fork bearing Franklin's crest, and the fork with that of Capt. Fitzjames of the "Erebus."

All these Franklin expedition relics were obtained by Rae from the Eskimos a hundred years ago. Left to right: 1842 shilling, sovereign, pre-Victorian half-crown, silver watch case, silver anchor, gold watch case. Rae himself cut the piece out of the silver case to give to a young friend.

Rae is said to have walked over 23,000 miles in the course of his travels in the Arctic and Sub-Arctic. A reminder of one of his long journeys is a pair of snowshoes on which he made a continuous march of 1,300 miles, at an average rate of 27 miles per day, during the winter of 1851-52—a wonderful test of endurance which only a very strong and resolute man could have performed. Along with the snowshoes are the moccasins which Rae used with them, and the pieces of duffle in which he wrapped his feet for their innermost protection.

Last in this little group of Rae's personal belongings are two medals in which he took great pride. One is the silver Arctic Medal, awarded to him by the British Government, "For Arctic Discoveries," bearing clasps for 1846-47, 1848, 1849, 1850-51, and 1853-54. The other is the Founder's Gold Medal of the Royal Geographical Society of London, which was bestowed on him in May 1852 in recognition of his contributions to geographical knowledge.

Beside these private possessions of Rae's are to be seen a few relics of the Franklin Expedition. Most of the articles which Rae recovered from the Eskimo were handed over by the Hudson's Bay Company to the Admiralty, which sent them as historical relics to Greenwich Hospital, but Rae, in recognition of his services, was allowed to retain a few of them. They comprise a silver fork and spoon, which, from the crests engraved on them, must have belonged to Sir John Franklin; a silver fork bearing the crest of Captain Fitzjames, the commander of the *Erebus*; a silver badge in the form of an anchor; a silver watch-case; the back of the outer case of a gold watch; a gilt-metal button; and a few coins.

In the course of his many journeys, Rae made good use of his opportunities to collect specimens illustrating the arts and crafts of the primitive peoples among whom he travelled. As a collector, he ranks high in the museum curator's estimation, on account of the care which he took to record the localities where his specimens were obtained, as well as such other information about them as was available.

The Eskimo objects are mostly from the Mackenzie and Coppermine districts. Knives and arrowheads, hammered out from the native copper which gave the latter river its name, illustrate the ingenuity of the Eskimo in making the best of their inhospitable country before the white man introduced them to iron and steel. Stone, bone, ivory, horn, and occasional driftwood were the only other materials available for making tools and weapons, and with these the Eskimo accomplished marvels. Slate was used for making spearheads and knife-blades. Snow-knives for cutting the blocks of frozen snow of which igloos were built were fashioned from walrus-ivory and bone. From bone too were made fish-hooks, spear and arrow heads, and a variety of tools and appliances. A woman's knife in the Rae Collection is an excellent example of primitive Eskimo tech-

nology; the finely finished blade of jade is set in a bone handle carefully grooved to afford a good grip to the owner's numbed fingers.

Some of the hardships of Eskimo life are suggested by the fire-sticks, a primitive piece of apparatus by means of which fire could be produced by the friction caused by drilling one stick into another; by the shallow lamp of soapstone, complete with wick of dried moss and stone trimmer, which, fed with seal-oil, was used primarily for cooking, but supplied at the same time some heat and light; and by the wooden snow-goggles which the Eskimo hunter wore as a protection against snow-blindness.

Proofs of the Eskimo's artistic capabilities are provided by neatly made bone combs, ornamented with incised patterns, for women's wear; by engraved needle-cases of bone and ivory; and by necklaces of reindeer teeth and pendants fashioned from walrus ivory.

In 1864 Rae made a survey for a telegraph line from Winnipeg across the Rocky Mountains to the Pacific Coast. His work was difficult, and indeed dangerous, involving as it did some very rough travelling on land and water, but, as was to be expected with a man of his calibre, it was successfully completed. It was probably on this journey that Rae acquired the small but valuable part of his collection which comes from the Indians of the North West Coast. The art of this region is quite distinctive; the highly decorative designs which were most in favour were based on the animal and bird totems of the various local clans, and were boldy and skilfully executed. An attractive tobacco-pipe head, carved in wood, painted in bright colours, and inlaid with pieces of *haliotis* shell, is a good example of this art at its most fully developed, but not yet debased, level.

The club of deer-antler, with shell inlay, smooth with handling and mellowed by age, must have been an old and highly-prized object even in Rae's time; such clubs, now rare and valuable museum pieces, once formed part of a chief's insignia, but were at the same time serious weapons which could be used in war and for the purpose of killing slaves on ceremonial occasions.

The belief in magic which played so important a part in Indian life is illustrated by shamans' rattles, an unusual carved "medicine-stone," and an attractive little "soul-case" of inlaid bone, which the medicine-man used for capturing lost souls. The temporary absence of his soul was thought to be the reason for a man's illness, so the "doctor," having by magical means induced the soul to enter the case, plugged its ends with cedar bark, and, bringing the imprisoned soul back to the patient, induced it by further ritual to re-enter his body.

Rae also collected specimens from the Indians of other parts of Canada. Among them are some historic relics of the Chippewas of Grand River, Ontario, including scalping-knives, stone axe-heads, and a medicine-bone. Specimens of the so-called "bird-stones," "banner-stones," and "gorgets" of North-Eastern America represent classes of apparently ceremonial objects, the meaning of which is still a problem to ethnologists.

A hundred years ago Rae electrified the world by a sensational discovery, and to-day his name is perhaps associated in most people's minds with the Franklin Expedition. His true fame rests, however, on the solid basis of the results of the Arctic explorations which he carried out painstakingly, and at great personal risk, during a lifetime of service to the Hudson's Bay Company. Rae was a remarkable man, outstanding both in character and in achievement. It is fitting that a memorial to him should exist close to the old University where he got his medical training. The Royal Scottish Museum is proud to have had this memorial entrusted to its charge. ◆

Rae's Royal Geographical Society Founder's gold medal, awarded him in 1852, and his Arctic Medal with clasps for 1846-47, 1848, 1849, 1850-51, and 1853-54.

RAE OF THE ARCTIC

A short biography of the great explorer,
written by another distinguished Orkneyman,

R. C. Wallace

JOHN Rae was born at the Hall of Clestrain in the Orkney Islands on September 30, 1813. His father, John Rae, was factor for the Trust of Lord Armadale (Sir William Honeyman) in the Islands. John was the fourth of a family of nine, six brothers and three sisters. Rae, the father, entertained Sir Walter Scott on his visit to Orkney in 1814, and acted as his guide to the Standing Stones of Stenness. Sir Walter later observed, "His farm is well cultivated, and he has procured an excellent breed of horses from Lanarkshire, of which county he is a native." On one of these horses Sir Walter was mounted on his trip to the Standing Stones. It was this visit to Orkney that inspired the writing of *The Pirate* and two of young Rae's sisters are supposed to have served as the prototypes of Brenda and Minna.

Before leaving for Edinburgh University to study medicine when not yet sixteen years old, Rae as a boy sailed, fished, roamed the hills with a gun, climbed the cliffs and exposed himself to all weathers. It was this "roughing it," as he called it, that helped to build up his powerful physique. He looked across the Bay of Ireland to the town of Stromness, nestling below the granite hill of Brinkie's Brae. Doubtless he became interested in the "Nor' Wast" and in the activities of the Hudson's Bay Company. For Stromness had a long and intimate association with the H B C.

During all those years when Stromness was the last port of call for Hudson's Bay Company ships, Orkney young men were taken on for Company service, so much so that at one period—so it is recorded—the majority of men in the service were Orcadians. They acted as labourers, boatmen, craftsmen, and in the higher ranks of the Service. They were hardy, industrious, reliable, and loyal. The names of Flett, Inkster, Foubisher, Linklater, Mowat, Firth, Omand and Ritch, to be found throughout the north today, testify to the Orkney connection.

In these youthful days Rae acquired skill as a hunter, and built up an unusually vigorous constitution. In his years of retirement—if such a word can be applied to John Rae—he went back to Orkney summer after summer to travel the heather hills with his gun. What he could not have had experience of in his native islands was snowshoe travel in which he later so greatly excelled.

It frequently has been remarked that medical men in the centuries preceding our own did much to advance the knowledge of natural history. Whether this is due to special emphasis on these studies during the course of their training, or whether the opportunities for observation were greater than in medical practice today, the fact remains that men such as Richardson and Rae, added greatly to our knowledge of plant and animal life in arctic regions. Both had Edinburgh University medical training, Richardson a quarter of a century before Rae, both entered northern service as medical men, both made their medical knowledge of secondary importance to their ability as explorers, as keen observers of living things, and as leaders of men. Rae graduated in medicine in 1833, engaged as ship surgeon on the H B C ship, *Prince of Wales*, to Moose Factory, where he was employed as clerk and surgeon till 1844, when he was appointed to Rupert's River district.

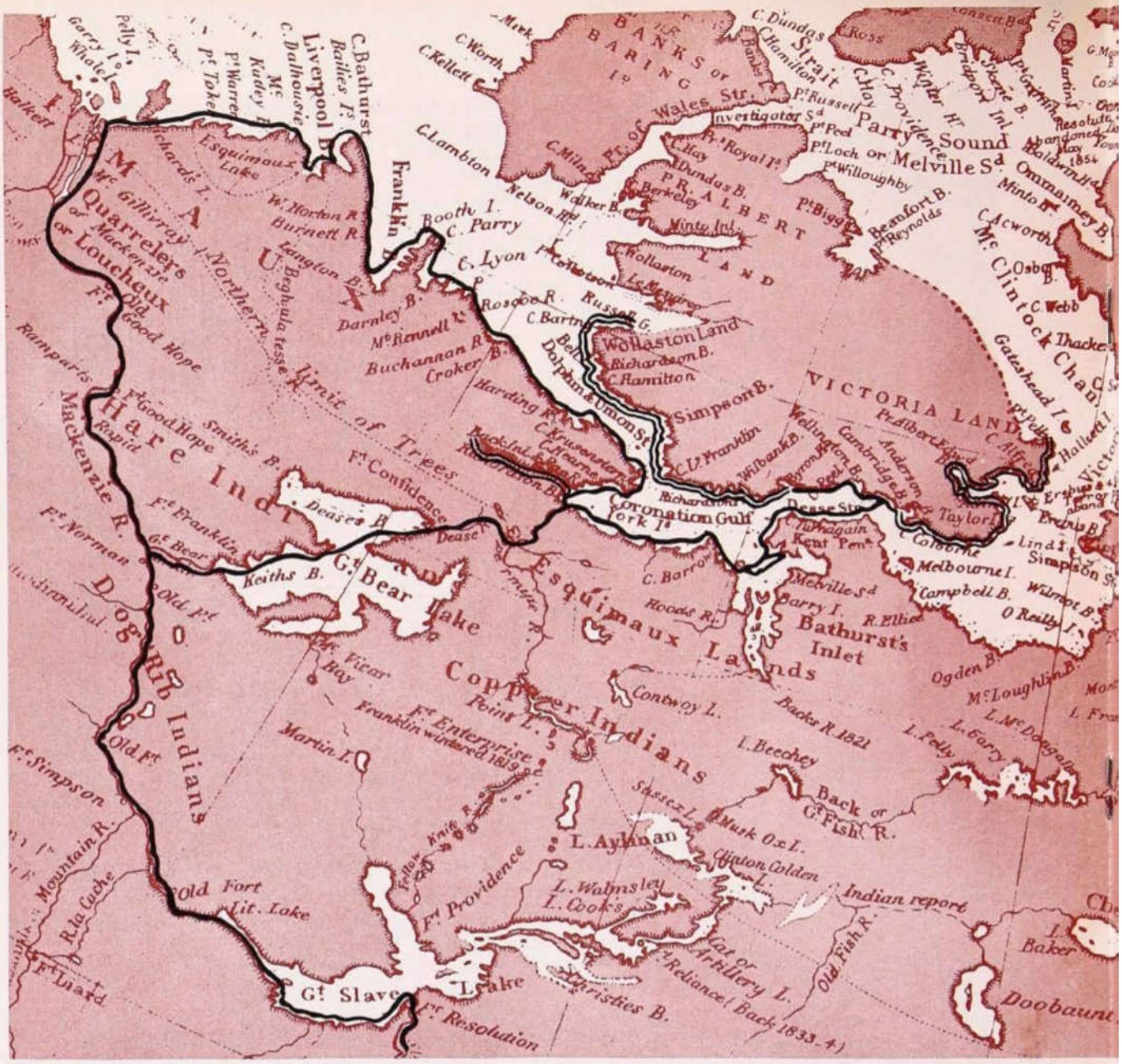
Sir George Simpson then commissioned him to go north to the west coast of Melville Peninsula from Fury and Hecla Strait southwards, and westwards to Dease and Simpson's farthest, filling in the gaps between the explorations of Parry (1823) James Ross (1833) and Dease and Simpson (1839). He was to have two boats and twelve men. The boats were built at York Factory and were 22 feet long. Before undertaking this commission Rae went east to Toronto to obtain training in astronomy and navigation. He proceeded north in 1846, crossed what is now known as Rae's Isthmus, explored, as far as ice permitted, the West Coast of Melville Peninsula, and wintered on Repulse Bay, having built a stone house, the ruins of which still stand. There was no fuel with the exception of *Andromeda tetragona*—"an interesting and beautiful herb in the eye of a botanist," as Richardson later remarked, "but giving no promise to the ordinary observer that it could supply warmth to a large party during a long arctic winter." Rae quickly adapted himself to the way of living of the Eskimo, and on his later winter travels used the snow igloo, and alcohol and seal oil for fuel. In 1847 he travelled around the bottom of Committee Bay and northward, practically to Boothia Isthmus, proving conclusively that Boothia was not an island but a northern peninsula of the continent. He explored as well the west coast of Melville Peninsula almost up to Fury and Hecla Strait. When he returned in 1847 and made his report, he had difficulty in persuading the Admiralty that Boothia was not an island. He revealed his feelings in a letter to Charles

R. C. Wallace, C.M.G., D.Sc., LL.D, D.C.L., F.G.S., F.R.S.C., etc., now executive director of the Arctic Institute, has been principal of Queen's University, Kingston, and president of the University of Alberta. Like Rae he spent his boyhood at Kirkwall in the Orkneys and studied at Edinburgh University. His interest in the North was aroused early in this century by listening to the reminiscences of retired Hudson's Bay officers in Winnipeg.

This magnificent portrait of Dr. John Rae in his academic robes was painted by Stephen Pearce. It was from this that the better known engraving was made, which appears as the frontispiece to the new Record Society volume.

Dickens. Rae was no enthusiast for the Admiralty nor for the naval explorers.

When Rae wrote the account of his 1846-47 expedition, he was already concerned about Franklin. The *Erebus* and *Terror* were overdue. He had not to wait long before being called on to participate in the search. In 1848 Sir John Richardson, who had been with Sir John Franklin in his polar explorations of 1819-22 and of 1825-27, as surgeon and naturalist, was instructed by the Admiralty to explore the coast from the mouth of the Mackenzie River eastwards, and as well the shores of Wollaston Land and Victoria Island. He was asked to take Dr. Rae as his



Part of a map owned by Dr. Rae on which he marked his own discoveries—shown here by double black lines—and his routes of travel (single lines). The original map was given by him to his grandniece, Miss Marion Scarth, and presented by her to the Hudson's Bay Company.

second in command. Richardson's references to Rae are numerous and highly laudatory. "He had resided upwards of 15 years in Prince Rupert's Land, was thoroughly versed in all the methods of developing and turning to advantage the natural products of the country, a skillful hunter, expert in expedients for tempering the severity of the climate, an accurate observer with the sextant and other instruments usually employed to determine the latitude and longitude, or the variation and dip of the magnetic needle, and has just brought to a successful conclusion, under circumstances of very unusual privation, an expedition of discovery fitted out by the Hudson's Bay Company, for the purpose of exploring the limits of Regent's Inlet." Such were the reasons that Richardson put forward in recommending the appointment. It proved to be on the whole a happy relationship, though Rae had the feeling that his chief left too much to his (Rae's) responsibility.

Richardson and Rae proceeded from London to Montreal and thence by overland route to the Winnipeg River, to Norway House, up the Saskatchewan and the Churchill, and down the Mackenzie to the Arctic Sea. They travelled eastwards to Coronation Gulf, and found the Strait (Dolphin and Union) crowded with ice and impossible to traverse. Giving up hope of reaching Wollaston Land, they made their way overland to Fort Confidence on the north

). He also drew and named the Quoich River flowing into Chesterfield Inlet.

shore of Great Bear Lake, and wintered there in 1848-49. Next spring Rae was instructed to endeavour to reach Wollaston Land, which was thought to be separate from Victoria Island, and continue with the search for information about Franklin. He took a boat—by river and by land—from Fort Confidence to Coronation Gulf, and found on reaching Cape Krusenstern that the ice in the strait made a crossing to Wollaston Land impossible. He was forced to make the overland trip again to Fort Confidence. At Bloody Falls, on the Coppermine, Albert, the trusted Eskimo helper, lost his life through the incompetence of the steersman. This was the only loss of life in any polar expedition under Rae's command.

Rae took over the charge of the Mackenzie River district at Fort Simpson in the autumn of 1849. Richardson had returned to England and handed over responsibility to Rae, who was again called into service to complete the commission. The Hudson's Bay Company, in cooperation with the government instructed Rae in 1850 to proceed once more northward. This he did; he was able to cross the strait and he explored with two men the coast line west to Point Baring and east to Point Colborne and Cape Perry, and was stopped by the ice from crossing to King William Island. He was nearer to the scene of the Franklin disaster than he knew. He had discovered 725 miles of coast line. One boat was brought back on the long trek to Great Bear Lake, and thence to Lake Athabasca. For this expedition Rae received the Founders Medal of the Royal Geographical Society in 1852.

Again he was called to service. In 1853, with the object of completing the exploration of the coast, but with no hope of finding any traces of the Franklin expedition, he proceeded north to Repulse Bay, with nine men, wintered there, and sledged westwards into Simpson's Peninsula. He met at Pelly Bay an Eskimo from whom he got the first information about the fate of Franklin and his men. The story has been repeated often, and is well known. In 1850 a group of some forty white men had been seen by seal hunters travelling south along the west coast of King William Island dragging a boat and sledges. It would seem that their ships had been crushed by the ice. Later, before the ice broke up, some thirty dead bodies and some graves were found on the mainland and five upon an island, "a long day's journey to Great Fish River." Rae recovered from the natives some silver spoons and forks, an Order of Merit in the form of a star, and a small plate engraved "Sir John Franklin, K.C.B." This was in 1854. The full story was only revealed when Captain McClintock, in an expedition at the request of Lady Franklin, found a small cairn at Point Victory on the northwest coast of King William Island, in which Lieut. Crozier, second in command, had left a message telling of the death of Sir John Franklin and the abandoning of the ships. The cairn was found in May 1859, eleven years after Crozier had written that the survivors were to start on their way to Great Fish River.

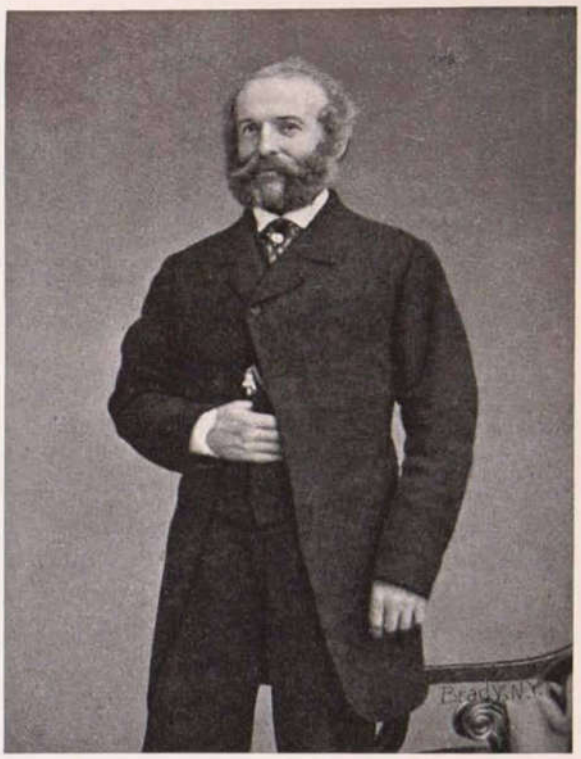
When Rae arrived in London after his report had been received, he was awarded, after considerable investigation, the £10,000 which he then learned had been offered by the government for the first definite information as to the fate of Sir John Franklin and his 129 officers and men of the ill fated *Erebus* and *Terror*. On this expedition he finally completed the commission with which he was charged when he set out from York Factory in 1846. He tied up the surveys of Simpson with those of Ross, and virtually completed the mapping of the north coast of the Continent of America, proving conclusively that King William Land was an island.

Thus there was brought to a close the service of John Rae to the Hudson's Bay Company and to Arctic Exploration. He had been engaged in arduous travel almost

constantly from 1833 to 1854, and particularly from 1846 to 1854. He retired from the H B C service in 1856 at the age of 43. But he could not remain inactive. He made a trip, in company with Hon. Edward Ellice, to the United States and Canada in 1858. In 1860 he undertook a commission that carried him far afield. When the Atlantic cable failed, a route was suggested through the Faroes, Iceland, Greenland to North America. Rae explored the land part of this route. Then in 1864 he accepted a task that brought him back for the time being, into the service of his old Company. The Hudson's Bay Company and the Western Telegraph Union Company decided to explore the possibilities of a telegraph route through Siberia, Bering Strait, Alaska and British Columbia, and Rae was asked to survey the route from the Red River to Victoria. In the course of this survey he negotiated a considerable stretch of the Fraser River in a dugout canoe without a guide. His survey notes proved of value in the later development of the Canadian West.

Rae's later years, until his death on July 22, 1893, were spent in London. He married, in 1860, Catherine Jane Alicia Thompson, of County Londonderry, who survived him. There were no children. He left the wish that he be buried under the shadow of St. Magnus Cathedral in the Orkneys. A short service was held in St. John the Baptist Church, London, at which many of his old friends of the Royal Geographical Society were present to pay their respects. Among the floral tributes there rested, at the foot of the coffin, a simple wreath of heather. His attachment to the Orkney moors was thus signified, even at his death. The service at St. Magnus Cathedral, which was attended by Mrs. Rae and her sister, was a public expression of the grief of his fellow islanders. The officials of the County and of the City of Kirkwall, the members of the Kilwinning Lodge of Freemasons, and the general public filled the nave of the old Cathedral which dates back to the twelfth century. On that day Orkney mourned one of her greatest sons. He lies in the yard of the Cathedral and in the nave is his recumbent figure carved in stone, in arctic travelling clothes, with his gun by his side, and a blanket or sleeping bag thrown over his body. The writer as a boy often contemplated that rugged figure, conveying as it did something of the indomitable vigour which characterized the man.

His vigour and his endurance were remarkable, even in the long history of epic tales of arctic travel. On one occasion, he travelled from Moose Factory to Albany, a distance of approximately 100 miles, on snow shoes in a day, or, probably more accurately, without taking time to sleep. When he resided for a short time in Hamilton, Ontario, he walked 40 miles to Toronto for dinner in seven hours, with no sign of fatigue. He was then 45 years of age. Altogether he explored 1700-1800 miles of new coast line, in the Gulf of Boothia, on the mainland east of King William Island, and on the south shore of Victoria Island. His total travels in arctic land and sea reached the figure of 23,000 miles, much of which was done on foot and dragging a loaded sleigh, or hunting for deer or game to maintain the



This is probably the oldest photograph known of John Rae. It was taken by Brady, the celebrated Civil War photographer. That of his wife (below) was taken in St. Paul; and both were given to the Company by his grandniece, Mrs. A. Trigge.

party. In several trips boats were pulled overland for considerable distances. Dogs were not then used to the same extent as they are now, and man-hauling was more often than not the order of the day. R. M. Ballantyne, whose books on the north are a joy to the boys of every age, was a young clerk in H B C service when he met Rae on his way north to York Factory on his first expedition in 1846. His impressions are revealing. "Dr. Rae appeared to be just the man for such an expedition. He was very muscular and active, full of animal spirits, and had a fine intellectual countenance. He was considered, by those who knew him well, to be one of the best snowshoe walkers in the service, was an excellent rifle-shot and could stand an immense amount of fatigue." And he withstood the years. The *Times*, in an obituary notice had this to say—"Although born in the Orkneys eighty years ago, until his last illness, no more vigorous looking or active man walked the streets of London."

Rae showed that it was possible to live off the country. It had been the recognized procedure to carry provisions adequate for a northern trip. Rae did not follow this method. On his 1846-47 expedition to Boothia Gulf he equipped for four months, and brought out his party safe and well at the end of fifteen months. Richardson repeatedly refers to his services as a hunter. His rifle was constantly in requisition to supply the party's needs. Dr. Vilhjalmur Stefansson adopted the same method with remarkable results in the early decades of the present century, and refers to the high regard in which the Eskimo of the Coronation Gulf area kept the memory of Dr. Rae alive. Great skill with the gun was essential; that both Rae and Stefansson possessed. Apparently he did not lose his skill, for at the age of 67 he was a member of the London Scottish team to shoot for the Queen's Prize.

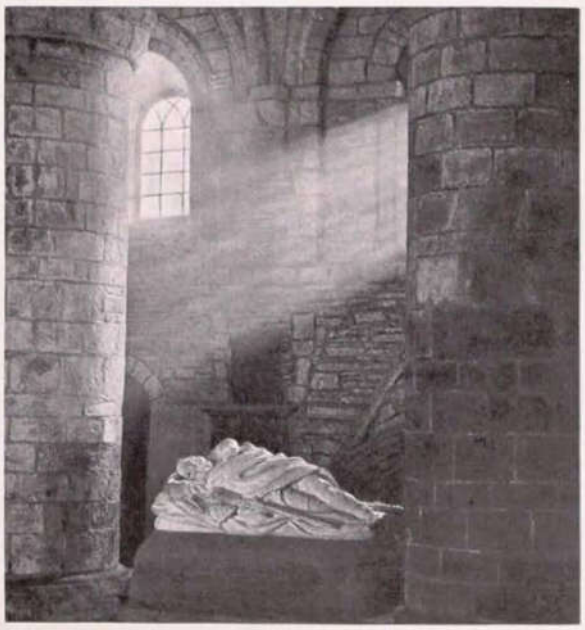
His love of sport helped to make him a keen naturalist. During his ten years at Moose Factory and surrounding territory he spent nearly all his spare time, in his own words, "in shooting and acquiring some knowledge of the peculiarities of the game I was in pursuit of." That knowledge is shown in his paper, "Notes on Some of the Birds and Mammals of the Hudson Bay Territories and the Arctic Coast" in which he dealt mainly with birds, and particularly with geese. Incidentally, he described a mass migration of lemmings to the coast in the Coppermine River area as he travelled back from his explorations in 1851. He contributed some 30 papers, on the formation of icebergs and the movements of boulders by ice, on exploration and on the native peoples of the Arctic. Richardson and Rae combined exploration and scientific study as few northern explorers have done.

He was honoured by being admitted a Fellow of the Royal Society, and by honorary degrees from Edinburgh and McGill Universities. In his London days he attended the meetings of the Royal Geographical Society, the British Association for the Advancement of Science, and the Royal Canadian Institute. He was elected a Governor of the Imperial Institute and was one of the first Directors of the Canadian Northwest Land Society. But he found time to spend part of the summers on the moors in Orkney. "Those of us who saw him on his annual visits to Orkney, even when he was close upon his allotted span, can never forget his striking figure, his indomitable expression; and how, shouldering his fowling-piece (he was extremely fond of sport on his native moors) he strode along at a pace which left young men far behind. At first sight, one realized that here was no ordinary man."

Kindly and generous though he was to those who worked with him and for him, he had no hestitation in fighting for credit where credit was due. There were sharp passages with Sir Clements Markham, the Secretary of the Royal Geographical Society, who seemed to ignore the explorations of Hudson's Bay Company men. From Rae's viewpoint, Markham belonged to the Navy clique, with whose methods of arctic travel Rae frequently took issue. Then, too, the Hydrographer for the Admiralty, Captain Washington, in a chart of Collinson's travels in Wollaston and Victoria Lands, wrote an attached note giving credit to Collinson for part of the mapping which had previously been done by Simpson and by Rae. Rae, after a stormy passage at arms, made Washington withdraw the note, but made him an enemy for life. It was probably as a repercussion of the episodes with Markham that the Royal Geographical Society was not officially represented at the funeral service for Rae in London, though many of the members of the Society attended in their private capacity. Might it be the case that his openly expressed attitude to the Navy stood in the way of his being recommended to the Queen for a Knighthood which his reputation and his achievements as an explorer would have amply justified?

There is no indication that he sought for any such honour. The greatest honour that he could achieve and which he would have desired, was to be remembered as one of the great explorers, and one of the greatest of travellers, in the long history of northern exploration. That honour rests securely on the pages of history. ✦

Rae's tomb in St. Magnus Cathedral, Kirkwall, Orkney. From a post card sent to Mrs. Rae in 1909 when she was living in Kent.



JOHN RAE'S STONE HOUSE

by J. Brian Bird
and M. Beryl Bird

Mrs. Bird standing inside the remains of the house where Rae spent his first Arctic winter.

The ruins of Rae's winter house of 1846-7 still stand near Repulse Bay.

RAE'S first landing place in 1846 near the mouth of the North Pole River was obviously the area in which to build his winter base, as it marked the beginning of the route across Rae Isthmus and hence the furthest point to which stores could easily be carried. The country around there and northwards across the Isthmus is low lying, rarely rising above 250 feet, but very rugged, being formed of numerous rock-knob outcrops broken by both large and small lake-filled hollows. Across this terrain the North Pole River flows south into Gibson's Cove, through a narrow rocky gorge with sides ranging from 50 to 150 feet high. The current is swift and there is almost continuous white water, as the river bed is choked with rocks and boulders. To the west of the river lies a broad, sand-filled valley with shallow lakes but no river. It is hardly surprising that when Rae first saw this desolate landscape he doubted the ability of his party to secure enough caribou to keep them in meat during the winter before the animals moved south.

At the mouth of North Pole River a sand-choked estuary 300 yards long leads into Gibson's Cove. The west side of the estuary is dominated by a hill that Rae called Beacon Hill, on the east side a low rocky promontory separates the estuary from a shallow land-locked bay. In Gibson's Cove there are numerous low but steep sided islands.

It seems certain that Rae had already decided before he left the south that in the absence of wood for building purposes a stone house would be most suitable for wintering as he had brought with him three double panes of glass for windows. Provisions and stores were to be placed, at least to begin with, in tents, and the boats were to remain in the open.

"Fort Hope" seen from the head of the valley. North Pole River issuing from its gorge lies beyond the ruins.

No obvious site for the house was visible and Rae "could find no better place than a deep valley . . . about 150 *yards* from North Pole River on its east side." The party began building the house in the middle of August. Boulders were collected locally and cemented together with clay taken from the estuary where it has a fairly high lime content from marine shells. This cement was not altogether satisfactory, as Rae writes that it washed out before hardening. Today most of it has disappeared. The walls were two feet thick and the three glass windows were let into them. When it was finished, on September 2nd, the internal dimensions of the house were 20 feet in length by 14 feet broad; it was 7½ feet high in front, the side that faced the river, and sloped to 5½ feet at the back. The roof was built from oars and masts, across which were stretched oilcloth and mooseskins. The house was divided inside into two parts by an oilcloth partition, Rae occupying one room with some of the food, the rest of the party living in the other. The building was called Fort Hope.

Despite a certain massiveness in its construction, the house was not comfortable to live in. It was very damp before the cold winter weather arrived and again when the warmer weather returned, so much so that the party moved out into tents as soon as they could in the spring. Inside the windows gave little light even when the sun was above the horizon, and seal oil provided the only artificial illumination. There was not enough fuel to heat the building, although sufficient had been collected for cooking purposes. As a result, it was both dark and cold inside; the temperature fell below zero, and in Rae's room, the colder of the two, the temperature fell to -14 degrees. *Ventilation was also difficult. The chimney only drew when the door was open, and the tobacco smoke from the rest of the party who were "most inveterate smokers" gave much trouble to Rae, himself a non-smoker. It is not to be wondered at that the school which Rae had started early in the winter had to be abandoned.

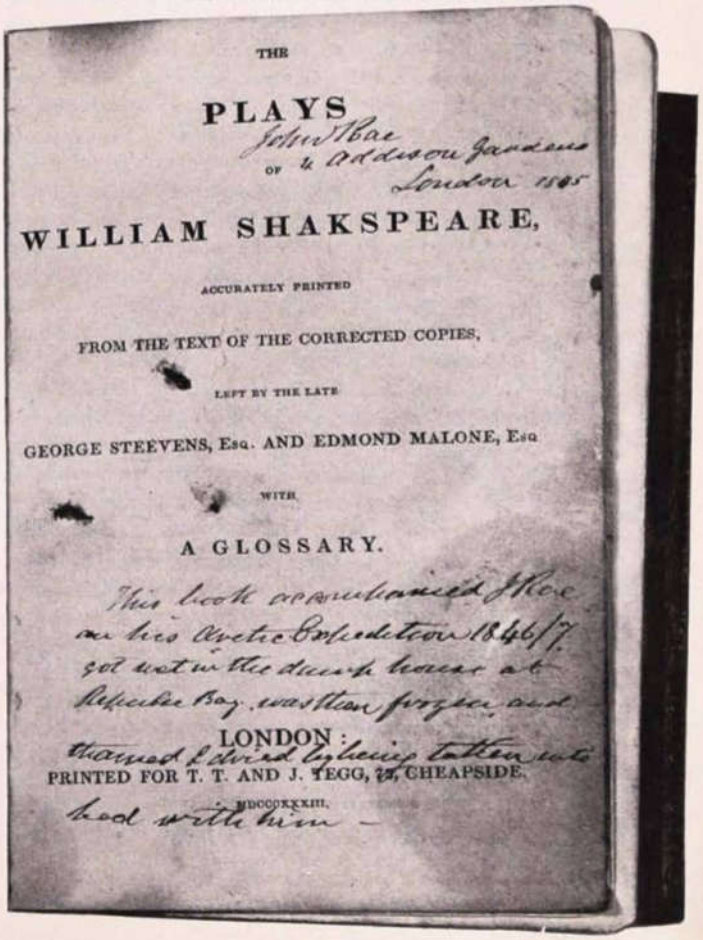
The most serious fault of the house, however, lay in its position with regard to snow drifts. As early as October the house was nearly buried by snow, and at the end of May four and a half feet of snow was accidentally allowed to accumulate on the roof, nearly breaking the masts.

In August 1952, almost 106 years after Fort Hope was built, the authors, whilst engaged in studies for the Geographical Branch, Department of Mines and Technical Surveys, visited Gibson's Cove. It has changed very little since Rae first arrived—even Eskimos were camping at the same sites although they were not there on Rae's second visit in 1853. We approached the site of Fort Hope from the little land-locked bay to the east, walking for some distance across a low rocky plateau, almost bare of vegetation, looking for Rae's "deep valley." We found the valley—shallow and grass-filled, about forty yards wide, sloping gently down to the west, towards North Pole River, where the valley is about 30 feet deep. The house was built at the head of the valley where it is narrower and a good deal shallower. Little remains of the former structure. The roof, windows and other portable objects were taken by Rae when he left in 1847. Unprotected, the cement has washed out of the walls which have partially collapsed. The north side of the house has suffered most severely, being reduced to little more than a pile of boulders, except for one cornerpiece. Part of the south wall is still five feet high. The doorway, which was on the west side of the building, and one of the window openings to the north of the door may just be distinguished. The other two window openings are still in fairly good condition, with the window ledges about two feet thick.

After Rae left in the spring of 1847, no one returned to live in Fort Hope. Hall, who between 1865 and 1868 covered much of the same ground as Rae, visited Fort Hope but did not stay. Even Rae, when he returned to Gibson's Cove in 1853 during his search for the lost Franklin expedition, did not use it. He wintered in the same area, but preferred to live in snowhouses. The disadvantages of the site were by that time so obvious to him that he chose a new site on a flat, raised gravel beach on the other side of North Pole River, to the SSE of Beacon Hill and half a mile south of Fort Hope.

It is interesting to note that Thule Eskimos around Repulse Bay had been living in not dissimilar stone houses during the winter. Mathiassen excavated some of these houses at Nauja, 15 miles away. However, as changes in culture occurred, these houses had been abandoned in favour of snowhouses by the time that Rae visited the area.

Title page of one of the books that Rae took with him in 1846. The note in his writing tells its story. Royal Scottish Museum.


THE

PLAYS

OF

WILLIAM SHAKSPEARE,

ACCURATELY PRINTED

FROM THE TEXT OF THE CORRECTED COPIES,

LEFT BY THE LATE

GEORGE STEEVENS, Esq. AND EDMOND MALONE, Esq

WITH

A GLOSSARY.

LONDON:

PRINTED FOR T. T. AND J. TEGG, 73, CHEAPSIDE.

MDCCCXXXIII.

*"Our few discomforts," writes Rae, "instead of causing us discontent, furnished us with subjects of merriment. For instance, Hutchison had his knee frozen in bed, and I believe the poor fellow was afterwards very sorry for letting it be known, as he got heartily laughed at for his effeminacy."

Rae's Arctic Correspondence

A review of the new volume of the Hudson's Bay Record Society

by Vilhjalmur Stefansson

CHIEF Factor John Rae has been the slowest of the 19th Century explorers about coming into his own. Some of the reasons for this are stated, many of the rest are implied, in this, the first scholarly book to appear that deals exclusively with him. Its introduction, which nearly amounts to a biography of Rae, is the work of J. M. Wordie and R. J. Cyriax. Dr. Wordie is Master of St. John's College, Cambridge, and president of the Royal Geographical Society; he is a long-recognized and deep scholar in polar matters, owner of one of the finest of polar libraries, and a distinguished field explorer both in Antarctic and Arctic. Dr. Cyriax is newer in the domain but already the author of learned works. Thus the over-delayed first book on Rae comes to us with the highest of sponsorship, and with appearance and scholarly furnishing that match the standing of the publishers and the repute of the editors, E. E. Rich and A. M. Johnson.

Since the present writer is another northern explorer, and moreover sometimes credited with having invented, or at least with having first used successfully, the field method which Rae practically invented and used with epochal success, I am here essaying not a book review but rather some comments on Rae for which the book gives occasion. And I make the story personal.

Rae (1813-1893) was a controversial figure. Awareness of this came to me in 1913 as I was speaking before the Royal Geographical Society in London where he had been a member, so there must have been in the audience many who had known him. As I spoke, I had been feeling from the audience a spirit of indulgent kindliness; but when I launched upon a eulogy of Rae I sensed a division among them, and during the rest of my talk I felt as if points which I made that could be construed as favourable to Rae met the approval of some and the disapproval of others. At least, that is how I remember the evening now, with the possibility that the interpretation really derives more from what Sir Ernest Shackleton told me at the close, that "a few old fogies" took the position that "anybody can succeed, *if* he is willing to go native." Rae was apparently considered in certain quarters as not having been quite in the high tradition of the gentleman explorer.

To convey the meaning of this situation, as bearing on the history of British exploration and on Rae, I would like to be able to reproduce here what I said of him then; but I always speak without notes and so have no proper record, and cannot do better than to quote in full, since the passage is brief, what I wrote of him in a book published the same year, *My Life with the Eskimo*. On page 305 I had been speaking of a cartographic issue between Rae and another of the British explorers whom I also greatly admire, Richard Collinson, where I had visited the place involved, to find, as it seemed to me, that Collinson had been in error. I went on:

> This is but one of the many instances of which I am aware that show the excellence of the work of John Rae, a man exact and truthful and in his methods of travel a generation ahead of his time; for while his countrymen were still using the (in many ways absurd) methods of travel which had handicapped them so greatly and led to so much needless suffering and so many deplorable tragedies, he had put into effect the only sound principle of the traveller—that of doing in Rome as the Romans do, which in the Arctic means using the methods which the forces of evolution have taught to the dwellers in icy lands, instead of methods which men, some of them ingenious and energetic, have evolved from their inner consciousness and the limited experience of half-a-dozen years.
>
> It is a striking thing that John Rae wintered in Repulse Bay, using only the food and fuel which nature had provided in Repulse Bay, and that he did this within a decade [really within less than half a decade] of the time when Sir John Franklin's entire company of able bodied Englishmen, equipped quite as well as Rae's party, starved helplessly and died to the last man in a country as well supplied with food and fuel as was that where Rae spent the winter in comfort. That the country in which Franklin's men starved is sufficiently provided with means of subsistence is shown by the fact that it was peopled by Eskimos both before and after that great tragedy. At the very time when these Englishmen were dying of hunger there were living all about them Eskimo families who were taking care of their aged and bringing up their children in comparative plenty, unaided by the rifles and other excellent implements which the Englishmen had in abundance.

This must be substantially what I said of Rae and Franklin to the Royal Geographical Society in 1913. The trouble, I gathered, had been about my suggesting that some of the other British explorers, like the Franklin expeditions, might have done well to learn as much as Rae did from the Eskimos. There was, it appeared, an established correct way to explore the Frozen North, somewhat as there is a right way to hunt a fox.

This sort of thing was a bit of a personal grievance with Shackleton, I gathered then and afterwards, for he too had suffered through not doing some things in quite the most approved way. However, the fox-hunt attitude toward the supersport of exploration was already dying, if not quite dead, as Shackleton and I talked. It is but a memory now, and replaced by admiration for and practice of what some call the Gino Watkins method. Honour to Watkins, who was one of the fine figures of the North; but there would be left over for him laurels enough should we permit this first book on Rae to open for us a historical perspective and lead us into speaking familiarly of the Rae Method—capitalized or as a common noun.

The first publication to applaud the Rae Method (or, shall we say, Rae as an explorer?) may have been R. M. Ballantyne's *Hudson's Bay* of 1848. Ballantyne met him in 1845 when Rae was on his way north to Repulse Bay, and he remarks: "He does not proceed as other expeditions

Dr. Stefansson, celebrated explorer of the Western Arctic Islands, is particularly interested in what he here calls the Rae Method of exploration, which he himself used so successfully in the early years of this century.

have done—namely with large supplies. . . . The party are dependent almost entirely on their guns for provisions . . . the Doctor himself is well accustomed to the life he will have to lead, and enters upon it not with the vague and uncertain notions of Back and Franklin. . . ."

As Ballantyne saw, it is in comparison with explorers like Franklin and Back that Rae stands out most conspicuously. Where they depended mainly on others, he depended mainly on himself. Where Indians secured game to feed such typical officers of the Royal Navy, this medically trained servant of the Honourable Company secured game to feed his Indian companions. Where Franklin's men starved, driven even to cannibalism, Rae never lost a man from hunger, seldom missed a meal. And his method led to speed and efficiency as well as safety, which Dr. Wordie and Dr. Cyriax are careful to emphasize. On page cii, for instance, they say: "Rae's outstanding characteristics in his travels were his dependence on hunting, his habit of travelling light, and of building snow houses, and the speed with which he was able to explore and survey his new discoveries."

Rae's own views of his method, in (implied) comparison with other methods, are found between pages xciii and c in a letter to an unnamed correspondent, dated "London, February, 1856."

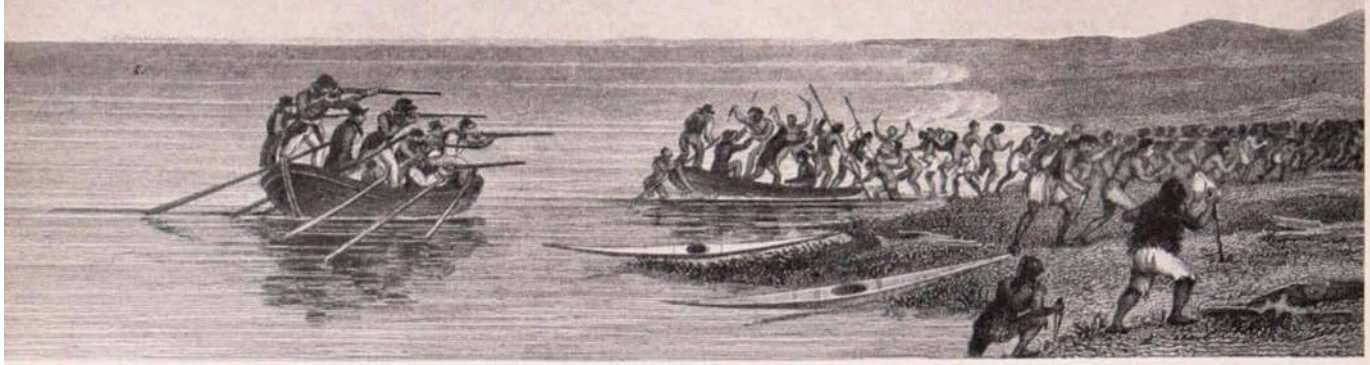
Discussing his first expedition, when he was away from his base "nearly fifteen months with a party of twelve," Rae says that "the whole stock of provisions carried with us was only sufficient for four months . . . and we brought back with us one quarter of this quantity; so that by our own exertions we procured food for twelve months." On later journeys, with more experience, he did even better. Two of his winterings, the first and another, were north of the tree line. On these ". . . we obtained by our own exertions food for twenty-two months of the twenty-seven we were absent, fully two-fifths of which (as far as requisite for our winter stock) was killed by myself." The first of the winters he used a stone house; during the second he used snow dwellings, easier to build and more comfortable. If he had not been able to take the lead in food providing, he thinks, these expeditions would have failed. "A party situated as mine were, but with a commanding officer who could not shoot, would in all probability have either perished or have been unable to perform any lengthened spring journey."

This much, and more which we have not the space to quote, Rae claimed for himself and his method. It all seems modest now, and justified; but in the somewhat emotional time of the Franklin Search his demands that due credit be given would sound strident, which was no doubt one of the roots of that lack of warmth toward his memory which I discovered for myself at the Royal Geographical Society twenty years after his death. Indeed, signs of this crept even into the obituaries. The Royal Society, for instance, after waiting four years as if for considered judgment, said in its *Proceedings* for 1897 that Rae "could point to instances of his own superior success . . . Putting forward his views, as he did with point and insistence, his remarks were, as a rule somewhat unwelcome to the naval authorities"—who had been the leaders of the Franklin Search and were now the mainstays of the Royal Geographical Society.

It was evidently a weakness of Rae's to be ungenerous to the weaknesses of others, as witness his perhaps not ungrounded sneers at his friend and patron Richardson in a letter to Sir George Simpson of 4 November, 1848 (page 91 of the *Correspondence*). Such ingentilities were no doubt in part responsible for the ungentle criticisms that circulated, based on both true and false charges against Rae. The least true of the charges hurt his feelings most, and injured his reputation the most seriously, though only for a time, since the lack of foundation is demonstrable. It was said of him that when—through freely admitted skill and perseverance—he finally succeeded in discovering the bitter solution to the Franklin mystery, that every man had perished, he then should have continued his investigation to make doubly sure of the truth of the Eskimo report, but that instead, with no more than a probability at his command, he had hurried home to Britain to claim the £10,000 reward that had been offered by the British government. This book makes it clear that the charge was based on a triple misunderstanding: there was no reason for questioning the accuracy of the Eskimo report that the last of Franklin's men died about four years before Rae picked up the evidence; there was a sound and important reason for hurrying back, to stop the sending out of searching expeditions, costly in money and risky of life, to parts of the Arctic remote from the scene of the disaster; and there was no "hurrying home to claim a £10,000 reward," for Rae had no knowledge that he was eligible for this or any other prize. The introduction shows, too, the falsity of the charge that Rae was unseemly about protests against delay in payment, after he learned that a prize was due him and his men.

"Apart from the naval officers who had taken part in the Franklin search," the authors of the introduction say, on page cii, "Rae after 1854 was the leading British arctic explorer." A case might be made, however, that Rae should be placed higher than any of the naval men, even M'Clintock, and this not just because his work came earlier so that M'Clintock could profit by it. Indeed, it might be held that Rae was the first modern explorer of the Far North who combined the scientific point of view with leadership, imagination and physical prowess to a degree such as we recognize to have been needed by the Mayo Brothers in surgery and the Wright Brothers in aviation. True, Rae did not found an institution or start a movement, like the Mayos and Wrights, but this can have been in the main because he lacked the publicity—his contemporaries and successors did not know what he had said, what he had done, and how he had done it. But now we are beginning to know, thanks to the publication of this first critical Rae volume. When other volumes follow, as the material demands that others shall, we may see a rehabilitation in the history of northern exploration second only, or fourth only, to those of Pytheas, Erik and Baffin. ◆

RAE on the ESKIMOS



Franklin's men driving off the Eskimos near the Mackenzie's mouth in 1826 when they tried to board his boats. Engraved after a sketch by Lieut. George Back, who was there at the time.

The celebrated explorer gives his opinions on the Arctic natives among whom he lived and travelled between 1846 and 1854.

Editor's Note

Seventy-two years ago this month Doctor John Rae read a paper in London before the Society of Arts entitled, "On the Conditions and Characteristics of some of the Indian Tribes of the Hudson's Bay Company's Territories." Most of it concerned the Indians he had known—the Swampy and Plains Cree, the Assiniboines, and the Dog Ribs; but the last part dealt with the Eskimos with whom he had come in contact from the mouth of the Mackenzie to Melville Peninsula. It is from this final section that the following extracts have been made. They are valuable as coming from a widely travelled, intelligent man who knew these primitive people before they had been affected by much contact with the whites.

PROBABLY there are no people on the face of the earth, certainly not in British North America, about whom there is such a diversity of opinion, as there is with the Eskimos, or Innuit, as they call themselves. By the majority these are stigmatised as dirty, gluttonous, treacherous, untruthful, and dishonest; small, weak, and indolent; whilst a small majority find in them traits of character of the most exemplary kind, and good qualities possessed by few savages. Much of this difference of opinion arises from the season of the year in which the Eskimos are seen, and the locality where they live; for in a coast-line, fully 5,000 miles, from Behring Straits to Labrador, and to Greenland, there is a diversity of the mode of life, and a variety of character, which can easily be accounted for by circumstances, although all are evidently from the same stock, if identity of language can be relied upon in arriving at such a conclusion. Eskimos from Labrador and East Main are found to be able to communicate freely with those at the mouth of the McKenzie River, 3,000 or 4,000 miles away.

During the short summer of the Arctic regions, Eskimos are not seen to advantage, as they then wear their oldest and worst clothing; those of Greenland and the west shore of Davis Strait, and Baffin's Bay, cannot look particularly clean at any season of the year, as their hot, half-underground winter dwellings are filled with smoke and smuts from their fire lamps. For this statement my authority is Kane, Hayes, and some whaling captains. The Eskimos of the McKenzie River, have, indeed, always shown hostility to whites, and a wild-looking, powerful set they are; no one of my crew, consisting of fairly strong sappers and miners, and sailors, could detach the hold of these fellows from the gunwale of the boat; to do this, Sir John Richardson in his boat rapped their knuckles with a stick. The reason of this hostility is easily accounted for; they are at constant enmity with their next neighbors, the Loucheux, with whom they have blood feuds. These Indians, in the course of barter with the white traders, obtain guns, which they use in their fights with the Innuit; hence, these last think us hostile to them, or at least friends of their enemies. On all the coast east of the McKenzie, the white man has been received and treated as a friend.

Three visits to the Coppermine River, and two winters among the Eskimos of Repulse Bay, gave me a most favourable impression of the natives of these places. At the former place, some of these men were tall (5 ft. 10 in. or 5 ft. 11 in.), well and cleanly clothed either in deer or sealskin dressed, at once friendly but unobtrusive, hospitable, and obliging; they readily helped us in crossing some streams, and without apparently expecting any remuneration. When presents were made them, they invariably

offered something in return. As [Thomas] Simpson did some 12 years before, I ordered a pair of waterproof boots for my journey across land in the autumn, and, I believe, from the very same Eskimo, who there and then took the measure of my foot. They had left the Bloody Fall (a famous fishing station on the Coppermine) before our return, but there was a very fine pair of boots dangling from a pole; so the Eskimo had kept his promise. The boots were removed, and very liberal payment in the form of knives, files, needles, etc., carefully wrapped up, and put in their place.

. . . All the Hudson's Bay Company's officials who have had dealings with the Eskimos, either at Ungava, Churchill, or East Main, prefer them to any of the Indians of the territory, and the same is the case with the missionaries at Labrador. As to the truthfulness and good memory of the Repulse Bay Eskimo, I had an excellent opportunity of testing these, because some of them, when young, had been on board Parry's ships [*Fury* and *Hecla*] in 1823, that is, 24 years before, and they mentioned circumstances that took place then as nearly as could be as they were told in Parry's or Captain Lyon's journal. It was the same with regard to Sir John Ross at Boothia, in 1829-32; none whom I saw, it is true, has been on board his ship the *Victory*, they, however, told me, with correctness, much that had occurred. They have not the gift of figures, and cannot remember dates. All important particulars regarding the fate of Sir J. Franklin's party communicated to me through my interpreter, turned out to be correct, even to the fact that all the books and journals had been destroyed; close search has since been made, and none have been found. A story has been told, coming from some whalers, who visited Pond's Bay near 600 miles north-east of the scene of the sad disaster, that Franklin's people had been murdered by the Eskimos. I do not believe this, and will tell you the reason why.

1st. Men go to the north with hobbies, or preconceived ideas, and are naturally desirous that these ideas should turn out true; they put leading questions, and often thus make out a case that has no foundation in fact. There are a good many instances of this. Kane went up Smith Sound determined to find an open Polar sea. His servant, Morton, found one for him, which turned out afterwards to be only an open pool, such as is seen at many places in the spring.

Chief Justice Daly, President of the American Geographical Society, expressed an opinion that "Franklin had been murdered by the Indians, who had already imbrued their hands in the blood of white travellers." We know that Franklin died in 1847, and could not be alive with his party in 1848. We know also, that the only Indians that the unfortunate men could have met, were those that not only had never killed a white man, but were of the tribe who had nursed Sir J. Franklin and his people on a former Arctic

These "Eskimos" depicted in the "Illustrated London News" for July 14, 1855, wear the "costume of a new tribe of Esquimaux, discovered by Dr. Rae, on Victoria Land." Note the similarity in certain respects of the right hand costume, to these of some modern western Eskimos.

An Eskimo at Little Whale River on Hudson Bay making a kayak in the early 1870s. Note the sealskin tents. J. L. Cotter

expedition, when at the point of death from starvation, with a tenderness and care worthy of all praise. Such is the way in which falsehoods spread.

2nd. Although I specially asked the Eskimos from whom I received the information, and who were not on friendly terms with those who saw the starving white men, whether there had been any of them killed, the answer was invariably no, and the same has been the case ever since, although the natives have, since my time, been taught to drink grog by our American cousins, and would be apt to let out the secret in their cups, if there was one.

When I returned from a long journey in 1854, I found nine or ten strong natives living near my three men, at winter quarters, on the most friendly terms, although, had they wished, they might have murdered them easily,* there being an immense temptation to do so, in the boxes full of knives, saws, files, etc., which were lying on the rocks, with no other protection than an oil-cloth.

The clothes of both sexes are neat, tidy, and clean, so much so, that even after being worn for the winter, they can be used by the white man without any discomfort, a marked contrast to the filthy sheep-skins which form the clothing of many easterns, abounding with swarms of active and hungry entomological specimens, by no means conducive to rest or comfort. Both Simpson and myself (after an interval of 12 years) saw on the coast, east of the Coppermine River, large bales placed on high rocks, inaccessible to animals. These, on examination, were found chiefly to contain winter clothing, which was as carefully packed away as dresses in a lady's trunk, and perfectly free from smell or impurity. Of course we repacked the bale (which was covered with some large musk-ox skins) without removing anything, but placing inside a very handsome present of ironwork.

The Eskimos are said to be a diminutive race, but I have studied the true Londoner, and, without actual measurement of either, I am inclined to think that the Eskimos are as tall as the natives of our great city, and much heavier. When sitting, an Eskimo does not look short; the defect of stature is probably due to the shortness of the lower limbs. On mentioning this to Professor W. H. Flower, of the Royal College of Surgeon's Museum, the very highest authority on such subjects, he mentioned to me a very curious fact, namely, that of three Eskimo skeletons he had examined, two of them had each an additional bone in the vertebral column, that is, twenty-five instead of twenty-four. The women, when young, are pleasant looking, almost pretty little creatures, extremely solid and compact, with small feet and hands, and well formed limbs. On one occasion my own man, a powerful fellow, accustomed to carry heavy weights, having to lift some of these young women out of a boat, they not wishing to wet their feet, told me afterwards that they were the heaviest things he ever carried, and but for very shame would have dropped them. He took them up in his arms as he would a child, and hence his mistake. I have already spoken on the activity and powers of endurance of certain Eskimos in comparison with whites; I also tested their strength in lifting weights; some of my fellows I knew could lift 400 or 500 lbs. I found that the difference of strength between the two races was very slight, and in some cases so close that, fearing that some one might come who would excel my men or myself, I closed the competition.

I may be laughed at for saying that the Eskimos are scientific, but I think I can prove the fact. The goggles which they have invented to protect their eyes from the glare of the snow, with its narrow slit, to admit only a small amount of light, the blackened inner surface, and the peak (like that of a cap) to keep the sun off, are all perfect. The Eskimo's mode of building his snow-hut—only about six inches thick in the wall—would puzzle an architect or an engineer, until he saw how it was done. The bed-place in his snow-hut is raised above the level of the top of the low door, so that those sitting or lying upon it are out of the draught, and in the upper or warmer air of the interior. On one occasion, the drifting snow, during a gale, was cut-

* This was only a few years after the sad fate of Franklin's party. If murder had been committed then, would it not probably have been repeated on my three men?

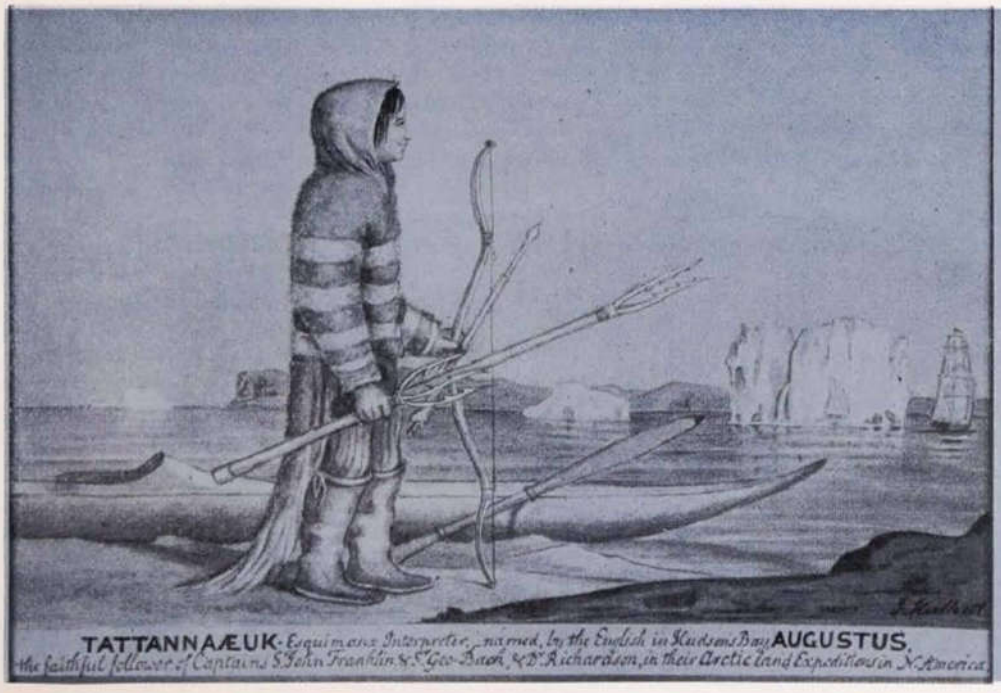
ting away the weather side of my hut. I told my men to pour some water on the snow to harden it. The Eskimos present remarked, "It was not good to do that, as it made the house cold." Once, I found a man, when about to build his snow-hut, digging several feet down into a driftbank for building material, although the surface snow looked in excellent condition for the purpose. On asking the reason, he said he wished to get the warm snow. This warm snow I found to be formed of much larger crystals than that on the surface. Probably, experience had taught him that it was a better non-conductor.

The man strips to the waist, as if preparing for a pugilistic encounter, when going to bed during winter, and the child is carried, perfectly naked, in the hood of the mother, the object of both being the conservation of caloric. Ask ten people in England, how would they heal frost-bite? Probably, eight out of the ten would say, "Rub with snow." The answer would be right if the frozen person were taken into a warm house, but wrong if he was at the time exposed to the low temperature that was freezing him. This lesson was taught to me by a little Eskimo woman one very cold day; she saw my cheek white, and immediately applied her warm hand to the part, pressed it gently, and moved the skin and flesh over the bone underneath; the circulation was immediately restored, without either wetting or cooling the hand, or abrading the hard and frozen skin by snow friction. This was science and common sense.

Their iced sledge runners enable them to haul a double load. The Eskimo kayak is as perfect a model for speed as the most perfect racing boat, compatible with sufficient breadth to carry a seal on deck if required. The Eskimo is the only canoeman known who can capsize his canoe, and, without leaving his place, right her again. His salmon spear is the most perfect I have ever seen; and his harpoon is so formed that it cannot possibly "draw," as the whalers say; the line may break, but the harpoon head is a fixture.

The Eskimos have a tradition that they came from the setting sun, and that they crossed water, probably Behring Straits. They certainly, to my mind, give the idea of a former more civilized condition. They treat their wives kindly, are grateful for kindness, which they showed in a very delicate and pleasing manner, by bringing us seal's fat when we required it, and taking no pay, because, as they said, we had been kind to some of their old people who encamped near us, and were under our care when the younger persons were away hunting. When sitting in the men's tent or my own, if they saw preparations for eating, they immediately got up to go away, but were, of course, asked to remain and share our food, if our larder was well stocked. The old folks left in our care never begged; and it was only by sending my servant to their tents that I found they were out of food. During the two seasons, the value of a sixpence was never stolen from us; on the contrary, we could with safety leave our tents in charge of some of the older people. I saw no instances of the huge feeding so often attributed to them.

. . . I have said much, and, if space would admit, could say a good deal more, about my friends the Eskimos, but I hope I have already given evidence enough, not only from my own experience, but from that of others, that I have had cause to form a high opinion of them. All Eskimo interpreters, from Augustus and Ouligbuck with Franklin, in 1826, to the present day, have proved faithful and true, sometimes under severe trial. ◆


TATTANNAÆUK- Esquimaux Interpreter, named, by the English in Hudsons Bay AUGUSTUS,
the faithful follower of Captains S.r John Franklin & S.r Geo. Back, & D.r Richardson, in their Arctic Land Expeditions in N. America.

"Augustus" the faithful Eskimo interpreter for Franklin, Back, and Richardson, who died in 1834 trying to rejoin Capt. Back. From a water-colour in the H B C museum by John Halkett, done at York Factory in 1882.

The Old Shipwreck

The author may be the only white man to have seen this old wreck at close quarters. His tent is on the right.

by P. E. Murdoch

What ship was this, blown inland during a gale on the north shore of Bylot Island, over 130 years ago?

THE first time I heard of "The Old Ship Wreck" was in the spring of 1952. I was stationed at Clyde River at the time and Constable Van Norman, who was there on patrol, brought up the subject. According to his story there was a shipwreck up on the north shore of Bylot Island, but where this ship came from was anybody's guess. None of the older natives at Pond Inlet remember when it came ashore. Apparently it was there when they were young. One of the older men recalls his father saying it was there when he was a boy so we estimate it at over a hundred years old. The constable told me of several attempts to reach this wreck but all of them ended in failure. There was apparently some superstition connected with this place and the natives did not like to visit it if they could avoid it. I determined that if I had the chance, I would make an attempt to see it.

The chance came sooner than I expected. That same spring I was transferred to Pond Inlet. When I made inquiries as to why it was not possible to make this trip, I was told by the natives it was because of the deep snow on the land-crossing at the north west point of Bylot Island. But in the fall I managed to persuade one of the men to try it with me and it was agreed that we would make the attempt in May.

It was May 6, 1953, when we set off. We intended to travel light and hunt food for ourselves and the dogs as we we went along. After the first day's journey the weather became windy and as there was no chance of getting any seals on the ice, the dogs would go hungry—and so would we if something wasn't done. Our only hope was to go up to the point of land on the west side of Navy Board Inlet and try hunting at the floe edge which was reported about five miles off shore. It took another two days of hungry travelling to reach this point, and much to our disappointment we found the ice had moved back in and there was no chance of getting any seals. We returned to the land and after a couple of hours hunting brought down a hare which filled our pot for the first meal in two days.

On May 11 we crossed Navy Board Inlet, collecting dog food on the way. Now came the test. If we could make the land crossing the rest would be easy. Here was where all the other attempts had met with failure.

This land crossing is only about ten miles but it is all rough country and there is usually very deep snow. To attain the height of land we climbed a gradual slope keeping to the north of the mountain ranges. Once we achieved this we came to a long rough plateau with shallow ravines running north and south. The last of these was about two

Peter E. Murdoch is manager of the Hudson's Bay post at Pond Inlet. A Newfoundlander from St. John's, he is an accomplished dog-team traveller, and besides the tough trip described here he has journeyed by sled from Cape Dorset around the south and east coasts of Baffin Island as far as Pond Inlet.

hundred feet deep. Here we came into very deep snow and almost decided to quit. But I told my Eskimo guide the story of Christopher Columbus, and not to be outdone he urged me to my feet and we carried on.

Three hours later we were up the other side. Now we had to turn off to the north in order to find the trail leading down to the sea ice which we could see in the distance. This trail is an old river bed which runs down a ravine between two high mountains. The land here falls away rapidly, sometimes dropping as much as a hundred feet in almost perpendicular jumps. The wind whistling up this narrow passage had formed a series of gigantic overhanging ledges of snow, some of which were a couple of hundred feet above us, hanging out over the trail. Rather than go back we decided to risk passing under them. As long as the dogs were quiet we figured we would be safe, but should the dogs start howling it could bring tons of snow down on us. Fortunately everything went well and we camped on the sea ice for the night.

The following day we sighted the wreck nestled under the base of a glacier in Maud Bight. Evidently it must have come in during a very high wind as it is now approximately a hundred yards from the shore line.

That part of the wreck visible above the snow indicated it was only about fifty feet of the bow of a large vessel. It was lying with its stem in the sand and thrown over to one side, so that only one side of it was showing above the snow. It was apparently a very sturdily built ship, the ribs being approximately nine inches wide and six inches thick. There were three layers of planking below the water line, each separated by a sheet of oakum. The outer planking was of a very hard wood, something similar to greenheart, the two other layers being of the hardness of oak. These three layers of plank would together measure about seven inches. The planking above the water line was of a single thickness of oak measuring about two inches, and it was attached with hardwood dowels a half inch in diameter, each layer of planking being also attached by nails. The second planking below the water line was fastened by brass or bronze spikes about four inches long. The ribs were doweled with three-quarter inch hardwood dowels in a line parallel to the planking. Inside the ribs there were two layers of reinforcements the first of hardwood approximately two or three inches thick running in a line with the outer planking. The final reinforcements were heavy timbers about a foot square. These ran at about a forty-five degree angle to the ribs, attached to the hull by half-inch iron rods which passed through to the outer planking. There was evidence of a bulkhead which would be situated about forty-five feet from the stern.

Having finished our survey we decided that rather than return by the same route we would continue around Bylot Island. This we found to be a much better route, though there was a considerable amount of soft snow. It took us until May 21 to arrive back at Pond Inlet, thus completing a trip of 320 miles in twenty-one days.

Editor's Note:

P. D. Baird of the Arctic Institute heard of this wreck when he was in the Arctic some years ago, and he has called our attention to a reference in McClintock's *Narrative* of his 1858 voyage. In August of that year McClintock was on the south coast of Bylot Island questioning the natives about any wrecks they had seen, in the hope that they might turn out to be either the *Erebus* or *Terror* of the lost Franklin Expedition. One woman whom he says was "not less than forty-five" reported that "there was a wreck upon the coast when she was a little girl; it lies a day and a half's journey, about 45 miles, to the north; and came there without masts and very much crushed; the little which now remains is almost buried in the sand. A piece of this wreck was found near her abode . . . part of a floor timber, English oak, 7½ inches thick; it has been brought on board."

This indicates that the ship was there as early as about 1820, and possibly before. As no ships from the naval expeditions of Ross and Parry were wrecked there, it is probable that the vessel was one of the whalers that frequented those waters. ◆

Heavy timbers about a foot square reinforced the hull, to which they were attached by half-inch iron rods.

COBALT and PORCUPINE

by O. T. G. Williamson

The pioneer La Rose silver mine is now operated by the Silver Miller Mines Ltd.

How the great silver and gold mines of Northern Ontario were discovered and developed.

NORTHERN Ontario, except for its southern fringe, for more than two hundred years looked north. The Hudson's Bay Company was almost its only civilizing influence and the Moose and the Albany, with their tributaries, formed its transportation system. A widespread traffic, based on fur, was funnelled to the James Bay ports. Lateral canoe routes, developed by the Company to a great extent, interlaced the country. This groundwork proved of the utmost importance when the construction of railways from the south made the search for valuable minerals a practical undertaking. The railways, first the Canadian Pacific at Sudbury and later the Temiskaming and Northern Ontario at Cobalt, pioneered the first great mineral discoveries of nickel, copper and silver, but from these points the canoe routes took over. Prospectors ranged far and wide, thanks to the traffic in fur, and replenished their supplies at many a post of the H B C. These and the routes connecting them pretty well set the pattern for the early search for silver and gold.

Silver had been known and successfully mined long before the advent of the Cobalt field. The history of silver mining prior to 1903, however, had been largely a record of frustration. The first discoveries were made as far back as 1846 or 1847 on the north shore of Lake Superior in the general area of Port Arthur. At least half-a-dozen mines were worked intermittently between those dates and 1903, yielding an estimated production of $1,500,000 worth of silver. The workings were shallow and the conditions under which the operations took place were difficult.

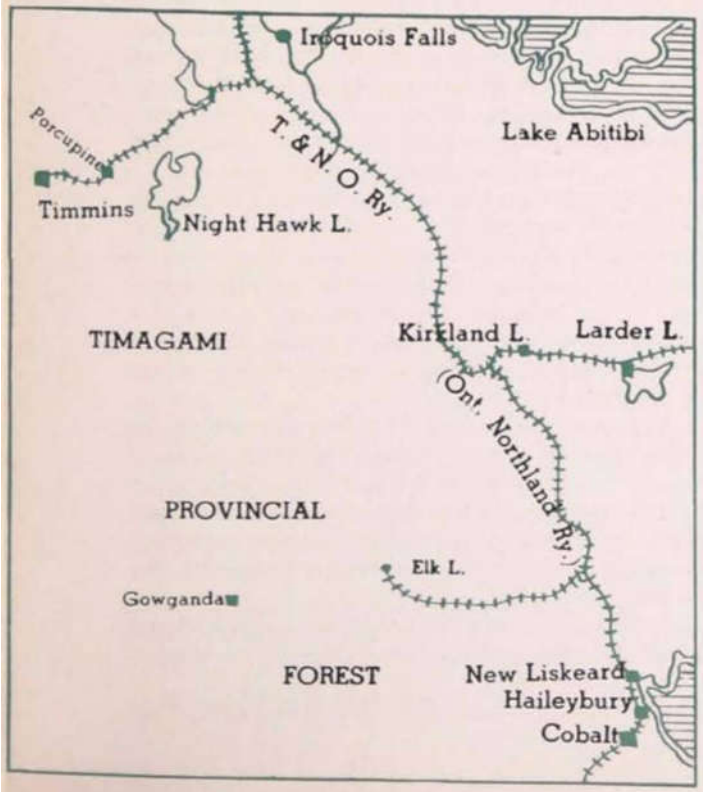
The story of Silver Islet, which is not included among those half-dozen, forms an epic in Northern Ontario mining. In 1856, the Montreal Mining Company acquired sixteen mining locations on the north and northeast shores of Lake Superior. In all, this company held nearly 100,000 acres, due to an official generosity which required that a location should have two miles of frontage and a depth of five miles. Although the grants imposed an obligation to carry on bona fide mining operations within eighteen months, nothing was done until 1868 when Thomas Macfarlane, a geologist and civil engineer, was sent in to make a thorough examination of the holdings. It was decided to make a complete survey of the Woods location on the north shore which seemed to offer the greatest promise. While planting a picket on a tiny island fronting the location, a vein 20 feet in width was discovered on the north side. This was traced across the island, where it branched into two veins, each 7 or 8 feet in width. On one of these, small nuggets of native silver were found and these persisted as the vein ran out into the water. The main vein exhibited little crystals of galena throughout with some iron and copper pyrites. The extent of the islet was noted in one report as having an area equal to that of a ballroom

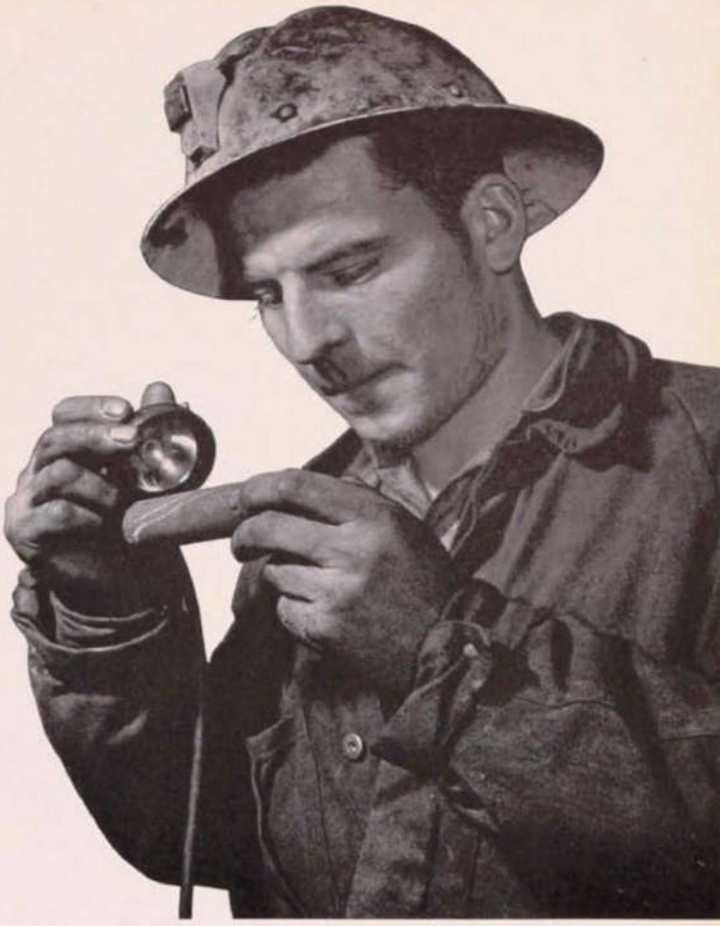
O. T. G. Williamson of North Bay is director of public relations for the Ontario Northland Railway—formerly the Temiskaming and Northern Ontario—and for many years has known the country it serves.

floor and it was entirely unprotected from Lake Superior gales.

The mining operations which ensued were small as compared with the protective works required to maintain a foothold on the islet in times of a southern blow. A barricade of 2-inch planks was the first protection and this was succeeded by extensive rock-filled breakwaters. Mining was carried out under successive owners and it has been estimated that between three and three and one half million dollars worth of silver was recovered before the project was perforce abandoned. Most of this recovery came from two great concentrations of ore, the bulk of which was sufficiently rich to be sent out in barrels to the refinery. The workings were ultimately carried to a depth of 1250 feet upon the vein and the end of the ore was pretty well in sight when the mine sprang a leak. Water rose at the rate of ten feet per hour and a large pump, which might have taken care of the flow, was on a ship frozen in at Houghton, Michigan. Gales which tore out the breakwaters, ice jams which levelled the mining structures, flooding from the surface, and a drunken captain failing to deliver a cargo of coal, were among the various hazards which finally called a halt to one of the most thrilling exploits in Northern Ontario mining history.

All this was merely a curtain raiser to the great drama of silver mining in Northern Ontario. Cobalt was quite another story. In 1902, the provincially-owned Temiskaming and Northern Ontario Railway was started from North Bay to probe its way through a tangle of rocky hills, lakes and streams to reach the fertile farm lands at New Liskeard, 114 miles to the north. By August, 1903, rock cutting for the right of way had progressed as far as Long Lake at Mileage 103. At the south end of the lake, on





A diamond driller examines a core. Geo. Hunter

August 7, James H. McKinley and Ernest J. Darragh, timber cruisers looking for tie material, discovered a metallic specimen which proved to be native silver. This, the first discovery, formed the basis for the McKinley-Darragh-Savage Mine. In September, Fred La Rose, a blacksmith working for the McMartin brothers, subcontractors on the railway construction, made a second discovery near the north end of the lake, and, because it was the first to be recorded, the La Rose must be considered the first mine in the Cobalt field, which was to become one of the world's greatest silver camps.

Silver mining in the Cobalt field was a poor man's game. While few of the prospectors who staked the properties brought them into production, this was proved quite feasible in several cases. High-grade ore at the surface and even detached silver "nuggets" lying on the veins made immediate returns possible, and for several years after operations began, all ore shipped from the camp was hand-cobbed,* high-grade packed in gunnysacks. Some of the shipments averaged as high as 6000 ounces of silver to the ton and contained ore that went to twice that figure. Silver was selling at approximately seventy-five cents per ounce. Over a period of twenty years, the average output of silver was about two tons per day.

*Hand-cobbing means reducing large chunks of ore to a size capable of being conveniently placed in small bags. The operation was performed with an 8-pound sledge and a 4-pound hammer, a developer of the forearm muscles highly to be recommended.

In the early days, the geology of the Cobalt area was the subject of much controversy and even as eminent an authority as John Hayes Hammond advised his clients against participating in a field which obviously would have a short and unsatisfactory life. Cobalt, in 1953, celebrated its fiftieth anniversary of production and, while the boom days may be over, it is still producing high-grade silver of the old time type and is carrying on in a pedestrian way—thanks to modern metallurgy and milling practices—with the recovery of metals which in the early days were disregarded. Cobalt metal, that bugbear of early mining, is now a highly-prized commodity. One interesting use of the metal, developed exclusively in Canada, is in the cobalt bomb. The bomb, in its first stage, is quite unimpressive, being merely a disc of cobalt metal about the size and thickness of a silver half-dollar. When made radioactive at the Chalk River plant, it is proving to be effective, at a comparatively low cost, in the treatment of cancer. It may be of passing interest to note that the name cobalt is derived from "kobold," a mischievous spirit of the European fairy tales. Miners in Germany, in the early days, found that some of their ores were bedevilled and attributed it to the malign influence of the kobolds. Actually, it was nothing more than the presence of cobalt which was making difficult their metallurgical processes.

The Cobalt camp has a record of production of almost $300,000,000 worth of silver and most of this was recovered in the twelve year period between 1908 and 1920. However, in 1951, the latest record, silver recovery was about $1,500,000 and cobalt added close to $600,000. As indicative of the fortunes that accrued and the richness of the ore, a few examples may be cited. The Temiskaming and Hudson Bay Mine, financed and operated by a local syndicate, sold part of its property for $880,000 and paid dividends of upwards of 26,000% on the original investment. The Crown Reserve extracted 20,000,000 ounces of silver from one vein and the Keeley Mine at Silver Centre had an equally spectacular record. Kerr Lake and Nova Scotia had native silver in astonishing variety and the ill-fated Lawson Claim had the Silver Sidewalk, a high-grade vein at the surface on which every passer-by scraped his heel to keep it shining. The promise of the Silver Sidewalk was, however, all on the surface.

Stoping machine in operation. Geo. Hunter

Cobalt is a great mining field in its own right but its influence on Canadian mining is even more important. It was a training ground for prospectors, those intrepid adventurers whom neither hardship nor discouragement could daunt. They are a special breed of men, seekers not enjoyers, and Cobalt produced them by the hundred. From there they ranged far and wide, and the record of discovery from Noranda to Yellowknife was largely written by the Cobalt men. More than that, the millions that were made at Cobalt were the basis for development in many of the far-flung fields of later years.

Cobalt prospectors, in the early years, ranged as far north and east as Larder Lake in 1904-06 and west as far as Fort Mattagami, a busy post of the Hudson's Bay Company and a life-saver for many a prospector who had run out of chuck. The Cobalt men established the Gowganda camp in 1908 and it was the Cobalt men who discovered gold at Night Hawk Lake in 1909. From this discovery, the gold mining era in Northern Ontario may be dated. It is quite true that gold had been discovered as far apart as on the Richardson farm near Madoc north of Trenton, Ontario, in 1866, and in the Lake Superior country in 1871-2-3. In 1878 or earlier, gold had been staked and worked in the area of the Lake of the Woods. Although some of this gold was of extremely high grade, the physical difficulties encountered in those early years led to general frustration and abandonment. The Larder Lake discoveries, in 1904-06, also proved abortive at that time.

There was nothing spectacular connected with early explorations in the Porcupine area. In 1896, E. M. Burwash and, in 1899, W. A. Parks, acting for the Bureau of Mines, noted the presence of gold and both expressed the opinion that intensive prospecting might prove profitable. In 1906-07, Reuben D'Aigle, a Klondike man who knew only free gold, prospected the ground which became the Hollinger and actually sank a test pit in ore which later assayed $52.00 to the ton. His Klondike experience gave him no inkling of the values he had discovered and his drill steel and forge were abandoned on the site when he gave up in disgust. Had he devoted his time to scraping the moss off rock in the vicinity of his pit, his fortune would have been vastly different.

The first actual discovery in the area was made by two Finnish prospectors, Victor Mausen and Harry Benalla, on an island in Night Hawk Lake. This was followed by further discoveries in the same general area on Night Hawk and Porcupine Lakes. None of these early finds developed into profitable mines but the prospectors were closing in for the kill.

In 1909, W. S. Edwards of Chicago grubstaked Jack Wilson who with a party of eight went west from the T. &

Benny Hollinger is the second from the right in this 1910 photo taken by Milton Flynn. At left is Barney McEnany and in front Frank Hart.

The "beehive" crushed ore bin and the concrete headframe of the Hollinger Consolidated Gold Mines at Timmins. The playing field in foreground is on the site of a former lake.
Can. Metal Mining Assn.

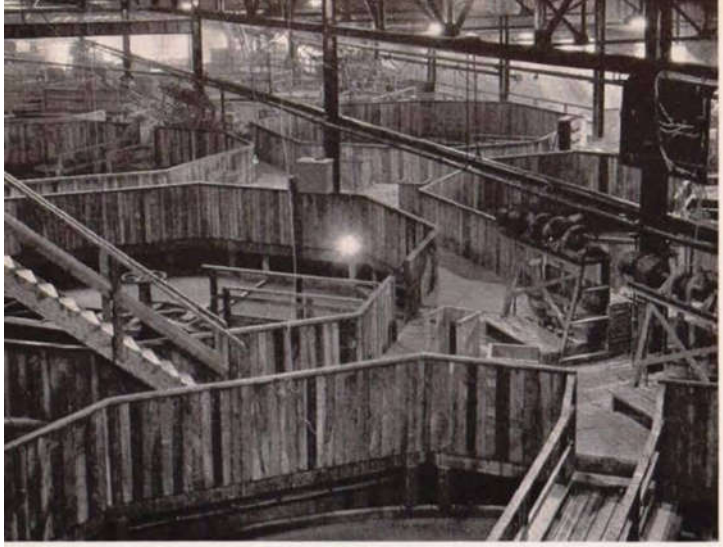
N. O. Driftwood station. In June, Wilson with Harry Preston and George Burns struck north from the Whitney-Tisdale township line. Preston, in the lead, slipped down a mound of rock and, in doing so, stripped the moss off a wide quartz vein showing flecks of gold. Further stripping disclosed an area literally covered with gold. This was the famous Golden Stairway which led to the Dome Mine, still in full production.

With this discovery, the rush was on. Benny Hollinger and Alex Gillies grubstaked independently by Jack McMahon and Jack Miller, were among the first. On a suggestion from Harry Preston, they went to the ground which had been abandoned by Reuben D'Aigle. The latter's test pit gave them no particular encouragement but they proceeded to stake the area. While Gillies was cutting a discovery post, Hollinger was stripping moss off the rock a few feet away. Suddenly there was wild excitement. As Gillies later said, "the quartz where he had taken off the moss looked as though someone had dripped a candle along it, but instead of wax, it was gold." Because the two were working for independent grubstakers, the toss of a coin was necessary to allot the claims. The luck was with Hollinger. He chose the six claims first staked and these were to form the basis of the Hollinger Consolidated Gold mines, the greatest producer of gold in Canadian mining history. The property was acquired by the Timmins-McMartin-Dunlop group who had made fortunes from the La Rose Mine in Cobalt.

Gillies' claims were optioned by the O'Brien interests, whose wealth also largely stemmed from Cobalt, but Lady Luck played them a cruel trick. A young engineer was given the job of packing diamond drill cores from the property to the railway for shipment outside for assay. The prospect of a thirty-mile hike over a bush trail with a heavy packsack inspired this luckless individual to give the cores an "eye-assay." He retained the quartz cores which showed free gold and ditched the schist cores which showed none. Actually the latter contained the real values. The O'Brien group dropped the option and Hollinger promptly added the claims to its holdings.

Sandy McIntyre is another prospector who must have a place in any story about the Porcupine. With Hans Buttner, a Dutchman, he joined the rush in 1909. On the way in, he met Hollinger and Gillies, elated with their success, and was told there was open ground on Pearl Lake. As a result, they staked what was to be the McIntyre Porcupine Mine, second only to Hollinger in the camp. Buttner sold his interest for $10,000 but McIntyre held on, selling his in bits and pieces as his convivial mode of life demanded. It is doubtful if Sandy McIntyre made more than $6,000 from his discovery, although to the credit of the McIntyre it must be said the mine kept him in moderate comfort for more than thirty years until his death.

To deal in detail with each of the gold mining areas in Northern Ontario would be repetitious, but a brief survey is essential to indicate the extent to which gold has been discovered and to suggest the vast potentialities of unexplored areas. In general, it may be said that discoveries have been made where the pre-Cambrian rocks outcrop at the surface. Vast areas lie deeply covered with deposits of glacial clay. That much of these areas will one day be productive there can be little doubt.



Part of the Kerr-Addiron mill at Larder Lake, largest individual producer of gold in Canada. Nott & Merrill

The Porcupine rush was closely followed by the discoveries at Kirkland Lake. The first property staked to become a producing gold mine was the Tough-Oakes-Burnside, later called the Toburn. The chief credit for development in this field must go to W. H. Wright and Harry Oakes, who, in 1912, staked the Wright-Hargreaves and the Lake Shore properties. These two men were among the few who staked properties and stayed with them through the whole period of their development and, in doing so, made immense fortunes. The Golden Mile at Kirkland Lake, with its seven mines, is second only to the Porcupine in its production, approximately two thirds of the latter

While the gold mining industry is under the handicap of a fixed price for its product, there are some properties which it would appear that neither hell nor high water could put into the discard. Of these, Kerr-Addison appears to be one. The history of the Larder Lake area has been a checkered one. The rush was on from Cobalt in 1906 and a great area was staked. Mining operations quickly got under way but none was successful at that time. The ore appeared to be too widely disseminated to make for profitable mining and all operations ceased. The field lay dormant for more than twenty years, until, in 1937, further exploration of drifts and diamond drilling on the Kerr-Addison group of claims disclosed a large body of ore which averaged about $10.00 per ton. As a result, Kerr-Addison is to-day the largest individual producer of gold in Canada, with a yearly output of over $12,000,000.

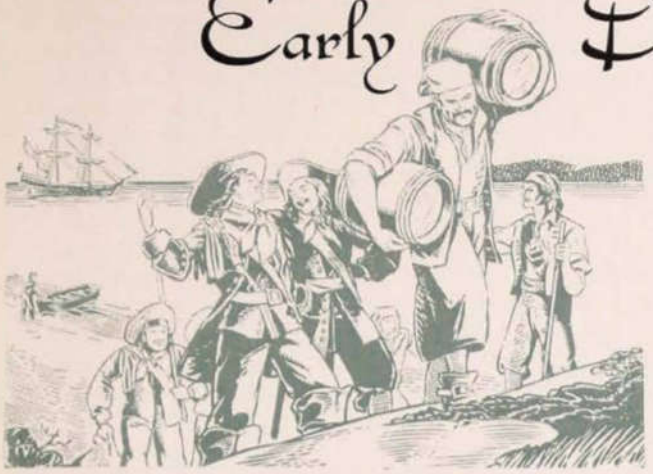
The cry is often heard that mining is a wasting asset. However, the obvious truth of this can be overstressed. The Porcupine passed its first billion of production several years ago and the three great mines mentioned and others in the area are still going strong. Indeed, comparatively new mines, like Preston East Dome, are now adding materially to the production of the camp. Not only is this so but Porcupine capital is developing and operating other metal mines throughout Canada, a particularly outstanding example being the iron deposits of Northeastern Quebec in which Hollinger is vitally interested.

Silver and gold have meant much to Canada. During the depression years, gold in particular saved the country from complete disaster, and both have stimulated the general growth of mining throughout the country. Because it is a fact that for every mine employee eleven other workmen are employed as a result of his activities, the influence of gold mining is widely felt in other industries. The gold mining industry must also be credited with having created particularly desirable living conditions wherever its operations have been firmly established. The Northern Ontario mining communities bear no resemblance to the rough and roaring camps of fiction. They are clean well-built cities with proper public services and the mines themselves are made lovely with parks and gardens. There has been romance in plenty in Northern Ontario mining, but the end result is a way of life for its people which bears comparison with any other part of Canada. ◆

View of the town of Kirkland Lake from the top of the Toburn Gold Mines headframe. Mac Black

Early Days at York Fort

by T. E. Tyler



THE mouths of the rivers Nelson and Hayes, divided only by a narrow strip of land, lie on the line of latitude 57°N., a distance of approximately 720 miles by sea, from the first trading post erected on the Bay, Charles Fort on Rupert's River. This was a long way from the area better known to the French-Canadians Radisson and Des Groseilliers, but nevertheless it attracted them from the beginning. For the rivers drained a hinterland as yet unvisited by white men, and which, lying far away from the French in Canada, would be free from their competition.

In the year 1670, the newly chartered Company of Adventurers dispatched to the Bay its first expedition, consisting of two ships. On August 18, the *Wivenhoe* commanded by Robert Newland, with Radisson and Governor Bayly on board, parted from the *Prince Rupert* in the Bay, and sailed west for Port Nelson[1]. There the Company had ordered a fort to be established, which was planned to be the main factory. The attempt, however, was dogged by misfortune. On August 31 they arrived in the Nelson River, and next day Governor Bayly took formal possession of the country for Charles II, "and in tocken thereof nayled up the Kings Armes in Brasse." Shortly after, a storm drove the ship out to sea, and as by this time two men had died and several more including the Captain were sick, they decided to sail to Rupert's River. On the reverse side of the last sheet of Thomas Gorst's *Journal*, now in the Guildhall Library in London, can be found Paul Mercer's description of this visit, pointing out some of the more attractive aspects of the Port Nelson area: "The Tide rises & falls here, about 11 or 12 foot, there is very fine Marsh land, & great plenty of wood about a mile beyond the Marshes, yet not very large . . . There is no want of food being great store of wild fowle, Rabbets & Deeres. There was then upon the ground Strawberryes, Gooseberryes, large red currans, huckle berryes & Cramberryes."

The Company had planned for Governor Bayly to winter on the Bay, probably at Port Nelson, but these plans did not materialize; Gorst gives as the reason for failure the fact that there were too few volunteers. In 1672-3 the *Imploy*, with Des Groseilliers on board, wintered at Rupert's River, and in the summer sailed for Port Nelson where she remained for about fifteen days, but no Indians came to trade and so she returned to Rupert's River, the men leaving behind some goods for the encouragement of any Indians who might visit the area, and also as a token implying that another visit would be made the next year.

No mention is made of any further attempts at establishment in the Port Nelson area until 1680, when the Company were spurred into action by the threat of competition. The urgency they felt is reflected in their letter of that year to Governor John Nixon, in which he is instructed to set up a post at Port Nelson and New Severn, and to make treaties with the Indians to make good the Company's ownership to the land and thereby forestall the French, for: "We judge it to be of great moment to our security that it be suddenly put in execution for we understand there are designs already on foot of interloping."

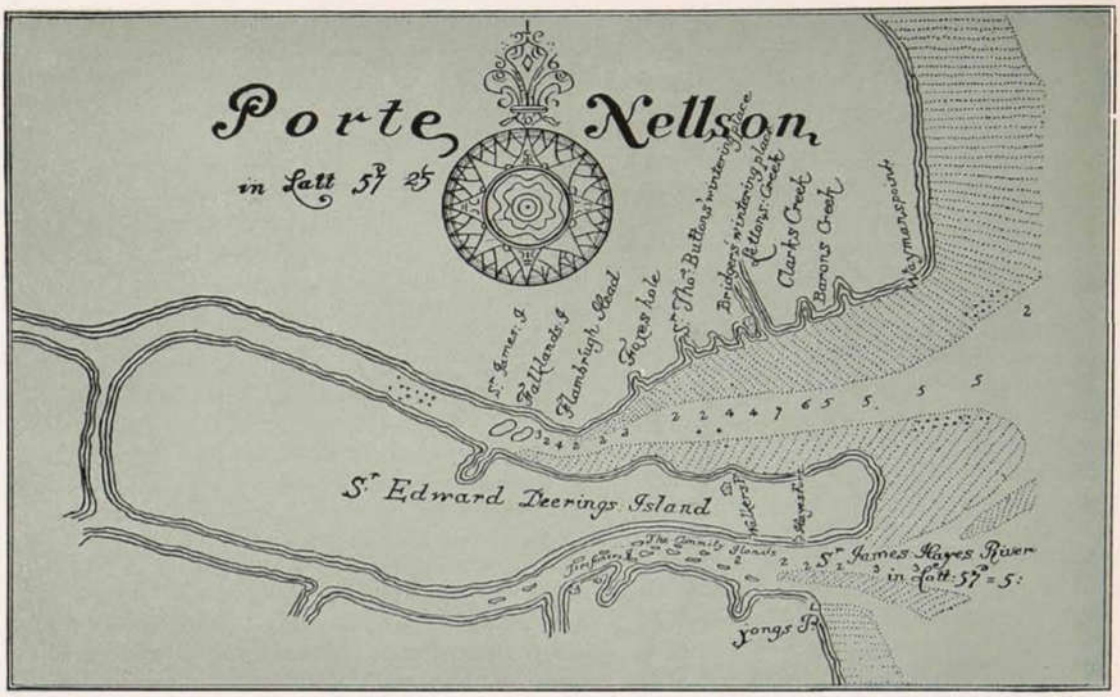
This threat materialized in the summer of 1682. In that year three expeditions arrived at Port Nelson in quick succession. Radisson and Groseilliers, now under the French flag, always claimed that they were first to arrive, but priority must be given to the expedition of Benjamin Gillam who commanded the *Batchelor's Delight*—an interloping vessel from New England manned by "14 men all Batchelors & very resolute Fellowes." The third expedition was that sent out by the Company. The charge of interloping was readily dropped in the face of the common enemy, and later when setting out their claims for presentation to the French King, the Company stated that Ben. Gillam's expedition was English.

Both Miss Nute and Professor A. S. Morton have clearly described the way in which Radisson easily outmanoeuvred and hoodwinked the two other parties and triumphantly sailed away to Quebec the following year bearing as prisoners the leaders of the two rival parties and, as a reward, the furs traded during the winter. The post was left in charge of his own men under Jean-Baptiste Chouart, Groseilliers' son.

Radisson's success, however, proved of little lasting value to himself. On his arrival at Quebec he found that the French Government viewed his actions with suspicion. His furs were seized, and he made the long trip to Paris in a vain attempt to reclaim what he believed to be rightfully his. Failing in this, he once more turned to the "Company of Adventurers" and, by 1684 he was once again in their service and sailing to the Bay on a Company ship, to seize for them the post which he had set up at Port Nelson. To the Company's great relief, he remained

1. So named by Sir Thomas Button in 1612 in memory of his chief mate.

T. E. Tyler is studying history at the graduate school of the University of London. He did the research for this article at the H B C archives in London.



A part-copy of the map of 1685 by John Thornton referred to below, the original of which is in the British Museum. From the copy in the Public Archives of Canada.

true to his promise and successfully claimed for the Company the fort with all the furs traded during the previous winter and spring. During Radisson's absence from the Bay in 1683, when Chouart was in charge of the French fort, a Company expedition led by Captain John Abraham had anchored in the mouth of the Nelson River and had set up an establishment which they named Hayes Fort. The winter of 1683-84 was enlivened by minor skirmishes between the two parties, but before any large scale attack could be made, Radisson returned.

The tempo of building was to be still further increased in this area during the next few years. Having regained control of the area, the Company was now determined to strengthen its hold. As a result, the Committee, at a meeting on February 27, 1684, decided that two settlements were to be made, one on the north river—the Nelson, and one on the south river—the Hayes. By so doing, the Company hoped to strengthen their legal and physical claim as well as to ensure that Indians, travelling down either river, would be met by Company traders. The number of servants was to be increased from nine to forty, including a "chyrurgeon," two carpenters, one smith, one armourer, one "taylor" and two bricklayers.

The expedition planned in February, set sail in May, 1684. It consisted of the *Happy Return* commanded by Captain Bond, and the *Lucy* under Captain Outlaw. Their instructions were to sail for the river of Port Nelson, to the fort there lately built called Fort Hayes situated on the south side of the Nelson River. The Company's records are not very clear about the positions of the posts on the Nelson and Hayes Rivers, but from the sailing instructions it may be inferred that the possible position of Abraham's fort of 1683-4 was at Walker's Point shown on the north side of the peninsula called mistakenly Sir Edward Deerings Island on the Thornton map of 1685, and therefore on the south side of Nelson River. The unfinished Hayes Fort shown to the east and on the north bank of the Hayes River, was by September, 1685, named York Fort. This was the fort sighted by the French expedition under Martinière, which had come from Quebec to take charge of Chouart's post. The French attacked it, but were repulsed, and returning downstream, laid up their ships in French Creek, where they built three houses and a fort made of logs defended by two bastions and a salient angle. The many forts springing up in quick succession well illustrate the importance attached both by the Company and the French, to the Nelson River estuary.

In 1685 Thomas Phipps was Governor at Port Nelson, with Abraham as Deputy Governor, and they had as their chief assistant the French fox, Radisson, who was once more in the Company's favour. His exploits of 1684 must have been the main reason for his reinstatement in addition to his great value as a trader. He was, therefore, given full charge of the trading side of Port Nelson which was described by the Committee as, "the best flower in our garden if well looked after & cultivated." For its cultivation Radisson was expected to play his part. As the Committee ordered in 1686, "But for the trading poste at Port Nellson, and all the circumstances which may conduce the improvement or conduct of it, we doe expressly order & command

that it be left supremly and chiefly to Mr. Radisson, whose skill that way & knowlidge of the Indians, we have a particular assurance, as well as an intire confidence in his Integrity & faithfullness . . . no man whatsoever shall oppose or contraule him, so long as consists with the apparent safety & preservation of our Fort & Factory." The last phrase makes very interesting reading. Fortunately for the Company their trust was justified and Radisson did not betray the confidence placed in him.

As early as Sept. 15, 1685, Hayes Fort on the north bank of Hayes River had been renamed York Fort. The choice of this name was probably intended as a compliment to their late Governor James, Duke of York, who, in February, 1685, had become James II of England. The Committee, however, addressed their letters to "Yorke Fort," or "Nellson Fort" indiscriminately. This may have been due to the Company's policy suggested by A. S. Morton . . . "to safeguard its title to Port Nelson by keeping a post on both of its rivers."

Apart from the 1682 incident the Company had suffered no direct attack by the French, either from France or from Canada. The year 1686, however, was to herald a period of strife in the Bay both in time of peace, and in time of war. De Troyes struck the first blow for France when, in 1686, he captured Moose, Rupert's River, and Albany. News of their loss did not reach London until January, 1687, and by that time James II had been beguiled by Louis XIV into a "Treaty of Peace, Good Correspondence and Neutrality in America" which, much to the Company's chagrin, maintained the *status quo* on the Bay with the forts in the hands of the French.

Far from being satisfied, the French still coveted the post at York Fort. Denonville, Governor of Canada since 1685, eagerly urged the Company to exchange the one fort at Port Nelson for the three taken at the "Bottom of the Bay," but the Company rigidly refused for they too could appreciate Denonville's estimation of Port Nelson as being "worth more than the other three together for trading purposes." Their concern for the safety of the fort is reflected in their letter to Geyer in 1688, in which they order him to keep it well fortified and strengthened so as not to lose it through cowardice and perfidiousness as

James, Duke of York, second governor of the Hudson's Bay Company, who ascended the throne as James II in February 1685, and after whom York Factory was named. From the portrait by Jacob Huysmans in the Company head office in London.

Sergeant had lost Albany. To strengthen his position politically, the King's Commission was sent out, making Geyer governor at Port Nelson.

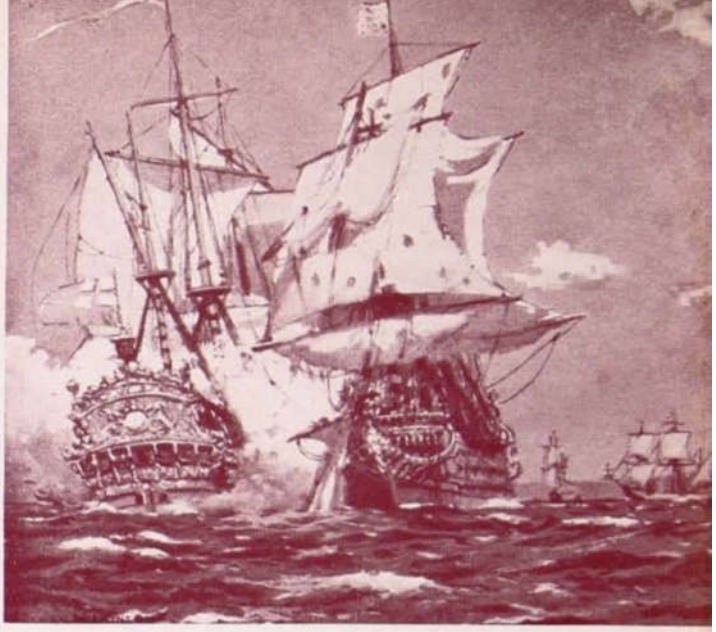
Troubled years lay ahead for the Company. After the flight of James II in 1688, and the accession of William and Mary, open war broke out between England and France. In 1690 d'Iberville once more attempted one of his audacious attacks when he sailed north from Albany Fort, with two ships and the intention of capturing York Fort. He and his party of ten, however, were spotted by the lookout, and the expedition, now that a surprise attack was impossible, withdrew empty handed.

Further good fortune was to favour the Company for the next few years. In 1692 the French fleet was defeated at La Hogue, and thereby the French threat of an attack on the Bay was removed. The Company dispatched a flotilla of three ships under the command of James Knight, who proceeded to recapture the three forts at the "Bottome of the Bay."

Once again the Company reigned supreme on the Bay, and in their moment of triumph, they did not forget Governor Geyer who had served them so well. In spite of his desire to return home, he had stayed on at the Company's request, and for this he was awarded a gratuity of £100. His draft of the completed fortifications at York Fort, had been received by the Committee in 1692, and had won their warm approval. They also expressed their satisfaction at the progress made in building the outworks of the fortifications which would be ready by the fall of 1693, and hoped that the task would continue unhindered.

Now that the French threat was removed, the Company could concentrate on reducing its expenses which were to be its greatest headache for many years. Encouragement was, therefore, given to the garrisons to supply as much of their food as possible through their own labours and initiative. Directions were sent out for keeping the cattle and goats which were to be forwarded later. All manner of seeds were supplied, with instructions on how to grow various crops, and, Stephen Pitts, a man with great experience of tillage and agriculture, was hired to supervise this project for supplying cheaper food.

Having settled in its own mind the problem of provisions, the Committee then turned to preparing for the possibility of another French attack. All along their great weakness had been the inability of the landsmen and tradesmen who garrisoned their forts, to stand up to the versatile and experienced French Canadians. This weakness was now to be remedied. A certain Philip Parsons was made Deputy-Governor of York Fort. He had been chosen by John Churchill (Duke of Marlborough), who was at this time, Governor of the Company. Captain Philip Parsons was to command what was to remain, throughout these years of war, a mythical force known as the Independent Company of Foot, for the defence of the Bay. The Company's financial state at this time, and for many years to come, was such that it could by no means support even a small army on the Bay. However, they may have had the idea of employing the Captain to train the garrison in the use



The battle between Le Moyne d'Iberville's *Pelican* (right) and H.M.S. *Hampshire*. In the offing are the Company ships *Dering* and *Hudson's Bay*. From the painting by Norman Wilkinson.

of small arms, the rudiments of military drill, and the defence of a fort in much the same way as the gunners of the ships dispatched to the Bay were expected to instruct the garrisons in the use of the many cannon with which the fort was to be defended.

York Fort at this stage had thirty-two cannon and fourteen swivel guns. The garrison which surrendered to the French a year later (1694) numbered fifty-three. The great number of cannon (so many compared with the number of the garrison), clearly indicated the Company's policy of expecting the crews of their ships to defend their forts at the time when they were most likely to be attacked; i.e., when the Bay was open to shipping during the brief period between June and September[2]. Thus in the general letter of May 30, 1694, Governor Walsh at York Fort was exhorted by the Committee to maintain a good discipline and to keep his men constantly drilling on the guns and with their muskets. This "may be done dureing the stay of our Ships day by day Injoyning ye Gunners to Instruct them therein that soe they may be ye more serviceable after ye departure of the Ship." As for musketry drill: ". . . Instruct and discipline them in ye use of their small armes & ye manageing of ye Great Gunns at least twice a week that they may be ye better able to defend our Factory at any time if need should require . . .".

But at the period of crisis, these firm injunctions and the presence of the commissioned officer were of no avail. On September 14, 1694, two French ships, the *Poli*, and *Salamander*, under the leadership of d'Iberville anchored in the mouth of the Nelson River. The English were not taken by surprise, but nevertheless, they were content to remain within the protection of their fort and guns, thus allowing d'Iberville to land his armaments and set up his batteries for the pounding of the fort. By October 14 (new style), d'Iberville was prepared to launch his bombardment, but before doing so he summoned the governor to

2. Hence the small number of men compared to the number of guns at Prince of Wales's Fort in 1782, when Hearne surrendered to the French.

surrender. Walsh sent out Henry Kelsey and Mr. Matthew the clergyman at York Fort to parley for terms, but d'Iberville, with all the aces in his hand, was adamant and demanded complete surrender. The garrison of the fort, numbering fifty-three in all, surrendered, and York Fort became Fort Bourbon.

The memory of this ignominious surrender lingered in the mind of the Company for many years, and even thirty years later, when the Company had for ten years been recognised as holding the monopoly of the trade in the Bay, it issued sailing instructions marked by a spirit of bitterness: . . . "We had two Guners in the Fort at 50 and 60 li per Annum, and over a Bowl of Punch and a long Pipe in there mouths it was a thing impossible for the place to be taken, but as soon as an enemy came to attack it they did not only take it but found a way to carry a ship of 30 guns up the South Channel with all Sails Standing about a Mile above the factory and there to winter."

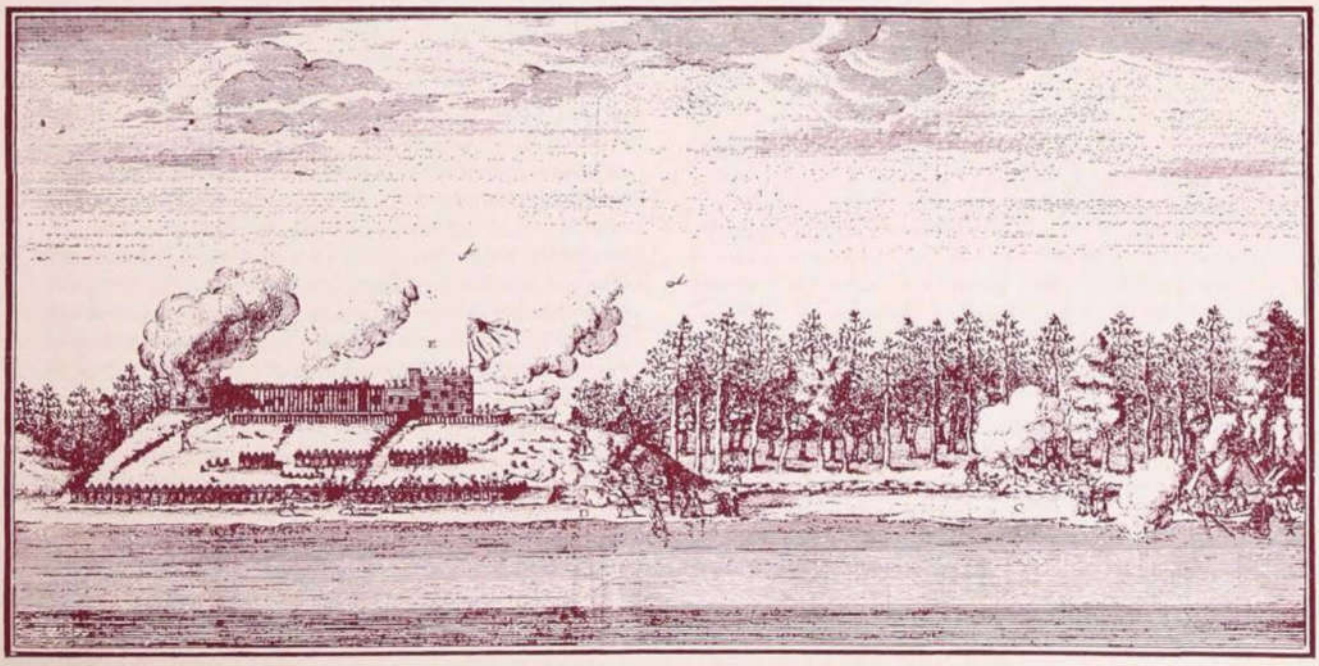
Jérémie, who accompanied d'Iberville on this expedition and who was later to become the French Governor of Fort Bourbon, gave a good picture of the fort and its defences in 1694:

> The fort had four bastions, forming a square of thirty feet, in which was a large warehouse of two storeys. The trading store was in one of these bastions; another served as a supply store, and the other two were used as a guard house to hold the garrison. The whole was built of wood, in line with the first palisade were two other bastions, in one of which the officers lodged, the other serving as a kitchen and a forge for the garrison. Between these two bastions was a kind of half-moon space in which were eight cannon throwing an eight pound ball, which commanded the riverside. Below this half-moon space was a platform, at the level of the water, which held six pieces of heavy cannon. No cannon was mounted on the side of the woods [that is, in the rear], all the cannon and the swivel guns were on the bastions. There were altogether in the fort, which had only two palisades of upright logs, thirty-two cannon and fourteen swivel guns.

It is significant that Jeremie considered it worth mentioning that there were no heavy guns to the rear of the fort. The Company's garrison were obviously concerned with attack by ship's guns on the seaward side. They must have believed that the landward side could be easily defended by musketeers, and may have even committed the gross error of believing that the swampy and inhospitable nature of the ground would prevent the enemy landing their heavy guns and manhandling them into a strategic position. They had failed completely to learn the lesson so bitterly delivered to them during De Troyes' raid on the Bottom of the Bay in 1686 when he had done that very thing to subdue Albany fort.

In 1696 the Company struck back. It had successfully petitioned the King for naval support and a strong convoy consisting of two King's ships, the *Bonadventure* and the *Seaforth*, with three Company frigates, the *Hudson's Bay*, *Knight*, and *Dering*, sailed for the Bay. The result of the expedition was inevitable, for the odds were overwhelming and the French commander, Gabriel Testard, Sieur de la Forêt, was forced to surrender. But the pendulum was yet to swing back in favour of the French, for on September 3rd, 1697, the French once again seized the fort, after having defeated a small fleet composed of a warship—the *Hampshire*—and two Company frigates—the *Hudson's Bay* and the *Dering*, in what was the biggest naval engagement ever fought in the Bay. D'Iberville once again was to the fore. As usual the fort once more surrendered to superior forces. A week after the French had captured York Fort, the Treaty of Ryswick was signed—September 10th, 1697 (old style). Fort Bourbon was retained by the French, and was to remain in their possession until its surrender to the Company under the Treaty of Utrecht in 1713. The actual handing over of the fort did not take place until James Knight's arrival on September 11, 1714. ◆

D'Iberville besieging York Factory after sinking the *Hampshire*. The bombs flying through the air are from the mortar (c) hidden in the woods. From La Potherie's History of North America.



Frozen Nose

There are various schools of thought about what to do with frozen faces and hands and feet. The old school taught that you should rub the frozen part with snow. Isn't it Alexandre Dumas who tells how he was suddenly set upon in the streets of St. Petersburg, borne to the ground, and given a good nose-rubbing with snow, all through the kindness of an observant passer-by?

Where this treatment originated is hard to say; but it is noteworthy that in January 1830, when Capt. John Ross was with some primitive Eskimos who had presumably never seen white men before, one of them noticed that Ross's cheek was white, "on which," writes Ross, "he immediately made a snowball and rubbed it . . . After this, he continued always near me, frequently reminding me to put my hand to the same part."

Today the latter part of this treatment is recommended, but not the former, and it will be noted that Dr. Rae, in his remarks reprinted on page 41 of this magazine, explains when the snow treatment is advisable, and when the warm hand. A recent article in *Hunting and Fishing in Canada* by Dr. W. Schweisheimer advocates, "gentle friction with *cold* hands . . . Recent medical research doesn't think much of rubbing frozen limbs with snow or without snow."

So there you have it—or have you?

One who has a Duck

After reading of John Rae's feats as a walker, on snowshoes or without them, it came as a bit of a surprise to learn that around Repulse Bay he was known by the Eskimos as *Meet-ee-lik*—meaning literally, "One who has a duck." S/L A. D. Copland, ex-H B C, who was up in the Repulse Bay country twenty-eight years ago, recalls this fact in a recent letter:

"In late February of 1926," he writes, "I started off from Repulse Bay post to cross Rae Isthmus by dogteam. My partner was Keedluk, and we travelled on the ice to the mouth of North Pole River in Gibson's Cove. A short way up the river and on the right bank I examined the ruins of Rae's 1846-47 camp. The walls were still intact, although no mortar had been used in their construction. After I had satisfied my curiosity, Keedluk informed me that the *ishimootuk*—the leader or thinker of the party—was named *Meeteelik* by the Eskimo. When I asked why, he did a little pantomime which left me with the impression that Dr. Rae must have been a heavily built man with short legs, with the suspicion of a waddle when he walked."

Against this impression we have the testimony of a writer in the *Orcadian* for Sept. 27, 1913, whom Dr. Wallace quotes in his article: "Those of us who saw him on his annual visits to Orkney . . . can never forget his striking figure . . . and how . . . he strode along at a pace which left young men far behind."

Maybe it was the *artiggi* and the *koolitak* and the *kogleek* that made him waddle. Or did he, being then new to the Arctic, wear his snowshoes as a matter of course, until he found they were unnecessary? The snowshoe walker waddles, and his "feet," like a duck's, are large.

Air Boats

Inflated rubber life rafts are supposed to be an invention of the air age. But over a century ago explorers were using what was known as a Halkett air-boat, an "India rubber boat" which carried three men and could be repaired with "India rubber paste." It was invented by Lieut. P. A. Halkett, R.N., son of one of Hudson's Bay Company's directors, John Halkett (*Beaver* Sept. 1940), and Rae in his first Arctic expedition refers to him as "The ingenious inventor of the portable air-boat, which ought to be the travelling companion of every explorer."—"During the whole of our spring fishing," he goes on, "Halkett's air-boat was used for setting and examining the nets, and was preferred by the fishermen to the large canvas canoe, as it was much lighter and passed over and round the nets with more facility. Notwithstanding its continued use on a rocky shore, it never required the slightest repair."

Rae took one of these boats on his 1848 expedition and mentions it as "Halkett's canoe," which suggests it had a bow and stern. Writing to Sir George Simpson on July 29, 1850, he says: "It is my intention to request Mr. Hargrave to procure me an Esquimaux interpreter from Churchill,

also to forward the Halkett air-boat . . . so as to reach me at Fort Confidence." And in his requisition for articles to be sent to York Factory for his 1853-54 expedition he included "1 Halkett's Air boat large enough to carry 3 persons." Such a boat was presented to the expedition by John Barrow of the Admiralty, but "unfortunately by some irregularity in the Railway baggage trains between London and Liverpool did not reach the latter place in time for the Steamer."

Unfortunately, too, we have no clue as to the design of these rubber boats, and we should welcome further information on them. In the Company's historical collection at Winnipeg there is a boat, made of what appears to be rubberized canvas, complete with thwarts and short oars, packed in a wooden box addressed to "Sir George Simpson, Montreal." But it is not inflatable, and the term "air-boat" indicates that the Halkett boat was.

Cover Picture

It was in April 1854 that Dr. Rae first received news of the lost Franklin expedition. On the 21st and 22nd he wrote in his notebook: "Met a very communicative and apparently intelligent Esquimaux; had never met whites before, but said that a number of Kabloonans [white men], at least 35 or 40, had starved to death west of a large river a long distance off. Perhaps about 10 or 12 days' journey? Could not tell the distance, never had been there, and could not accompany us so far. Dead bodies seen beyond two large rivers; did not know the place. Could not or would not explain it on a chart." And Rae added: "This information too vague to act upon, particularly at this season, when everything is covered with snow."

The Eskimo who brought this news was wearing a gold cap band round his head, but it was not until nearly four weeks later that Rae came across some definite relics of the lost expedition. "We reached Pelly Bay," he wrote, "at 1 am on the 17th, and built a snow house. . . .

"Observing traces of Esquimaux, two men were sent after supper to look for them. After 8 hours absence they returned with 10 or 12 native men, women, and children. From these people I bought a silver spoon and fork. The initials F. R. M. C. not engraved, but scratched with a sharp instrument, on the spoon, puzzled me much, as I knew not at the time, the Christian names of the Officers of Sir John Franklin's Expedition."

This is the scene that Charles Comfort has depicted on our cover. The initials that puzzled Rae were those of Capt. F. R. M. Crozier of H.M.S. *Terror*. A note in the new Record Society volume (p. 283) shows that the spoon was a tablespoon, and also bore Crozier's crest—just as the spoon and forks illustrated on page 25 bore Franklin's and Fitzjames' crests.

Life in the Old Dog

In his article in this issue, Dr. Wallace quotes the London *Times* as saying of Rae after his death: "Until his last illness, no more vigorous looking or active man walked the streets of London." And after reading one of his letters, of May 1887, we can well believe this. The letter was written to his niece, Mrs. Locke, of Hamilton, Ontario, and was sent to us by her daughter, Mrs. Trigge. Rae at this time was a member of the London Scottish, and considering he was 74, he may be pardoned for boasting somewhat (he was never exactly bashful) of his own physical prowess:

"I went through a pretty hard day's work on Easter Monday by going through the whole Review of the Volunteers at Dover. I am still as you know a private (I would not accept an officer's commission, being too much trouble) and am about the oldest man—as a private—in the whole volunteer force of more than 200 thousand men, and feeling doubtful if I could go through a hard day's work I went to the Review in the following way:

"Up at 3 in the morning, dressed in uniform, had some coffee and bread and butter, started for *headquarters* ½ an hour afterwards with Rifle, haversack, water bottle &c did the 4 miles at a smart walk in 54 minutes, got into train, reached Dover in 2 hours 40 minutes, took some breakfast, then was walking, running, firing blank cartridge, climbing over fences, struggling through *brambles*, which cut the legs of some of the young fellows badly, [but evidently not the old fellow's] for about *ten hours*, winding up with a march past, then by train to London and home at 9h 30m p.m. as fresh as a daisy with not a pain, ache nor scratch upon me, neither then nor next morning. In fact had it not been for the thought of keeping 'Aunt Kate' [his wife] sitting up I would have walked the 4 miles from the station to the house instead of riding. I had walked and doubled altogether about 26 or 27 miles—so I came to the conclusion that I was still 'game' for a hard day's work if required. We have such a fine lot of young fellows in our Corps (more than 900 strong) that it is a pleasure to be among them."

Next Issue

The large number of articles in this issue having to do with Dr. John Rae has squeezed out several others which have had to be postponed until June, among them the fourth article in the series on white contact with primitive peoples in the New World. Other articles planned for June deal with such subjects as new transport facilities in the sub-Arctic, a modern Thoreau, boat and canoe building in the North, "Bear" Ellice, snow geese, the Wilderness Society, and the use of cannon in the old fur trade.

NORTHERN BOOKS

NORTH by Kaare Rodahl, M.D. Mussons, Toronto, and Harpers, New York, 1953, xiv + 237 pages.

Reviewed by P. D. Baird

THE subtitle of this book is "The Nature and Drama of the Polar World," and a large part of it is concerned with a description of Arctic regions, resources, and human factors, with the stress laid on the Polar Basin itself. But the excuse for the book is the story of the establishment of a United States Air Force party on the floating ice island T.3 near the Pole in March 1952, and the author's thirteen days there.

This narrative account is clear and detailed, and the dramatic interest is well sustained. It was a bold plan successfully brought to fruition through the devoted efforts of Colonel Joe Fletcher. But 13 days of experience, however fascinating, scarcely make a book, so Dr. Rodahl has given us this long introduction. To whom is this aimed? It is too lengthy and technical merely to set the stage of the ice landing for the lay reader. Yet it cannot be claimed as a truly scientific resumé of the facts of life of the Polar Basin. Some of the statements about animals are a little hard to take. If the author has "often watched the polar bear crawl towards his victim" (a seal), he has been very lucky . . . "blizzard and cold when even the dogs refused to go on, when their eyes were closed by the ice in their hairs, and their bellies gangrenous from frostbite. Under such conditions the natives . . . know it is futile to try. . . ." You bet they do ! These are dead dogs.

The planning of the ice island landing is well described: one is accustomed now to the massive effort which the United States Air Force can make when it is sold on a project, especially if the United States Navy is a potential rival. But still there wasn't time to get caribou clothing for the three men (four in the plan) to be landed in 60 below zero weather in this inhospitable spot—their sextant was left aboard the plane, and they had zippers on their sleeping bags.

Canadian readers will be disappointed at the figure given for mineral production in the N.W.T. and Yukon—"more than $2,000,000." A slight understatement. Without uranium the figure for 1950 came to $17,000,000 and has been increasing since.

Credit is given to the United States Air Force for the fine air view of the north Ellesmere ice-shelf taken by the R.C.A.F. (photo T404 L-4) and reproduced in the article in *Arctic* which Rodahl lists in his full bibliography.

This bibliography, together with an index and attractive endpapers, adds considerably to the value of the book, which any collector of Polar items should have—though he may have difficulty in cataloguing it.

P. D. Baird is director of the Montreal office of the Arctic Institute of North America.

UNCONVENTIONAL VOYAGES by Arthur Lower. The Ryerson Press, Toronto, 1953.

Reviewed by J. L. Johnston

DR. A. R. M. Lower, historian, and collaborator with economists in studies of Canada's resources, has further enriched our literature in this, his latest work. Through the nostalgic memories of his own experiences, written in short essays chronologically arranged, we come to understand better the foundation of his love for Canada, which has prompted him so consistently to prod and attempt to shame Canadians into a stronger sense of unity, tolerance, and cultural appreciation of our own human and natural resources as the springs of a distinctive environment. It is not difficult to visualize his memories taking form before the glow of an open fireplace with kindred spirits abetting in the restoration.

These short narratives of various voyages Dr. Lower has made are nuggets of Canadian life on the frontier. There are three main types: early youthful experiences, the first Great War, and movement through Canada from Atlantic to Pacific. His love of the outdoors is illustrated by his reminiscences of being a student fire-ranger along the northern construction route of the Canadian Northern Railway near Nipigon at twenty years, and at twenty-four being appointed to make a report on the fisheries of the west coast of James Bay in 1914. Memories of service in the British Navy and details of events in the English Channel make up the second group. And crossing Canada by car along many of the lesser travelled highways gives the author an opportunity to make social comparisons as well as to illustrate the geographical variations. A trip to Europe with 1500 Canadian and American college students in the contemporary era appears enlightening to Dr. Lower. His reflections indicate an appreciation of the comparative reserve and less extrovert characteristics of the young Canadians.

HOW ANIMALS MOVE, by James Gray. Cambridge University Press, and Macmillan's in Canada. 114 pages.

Reviewed by Clarence Tillenius

THE earliest interest taken in the problems of flight and the mechanics of movement was no doubt that of prehistoric man. Sitting on his rocky ledge, still gasping from the upward scramble for safety, vultures soaring above and a hungry sabretooth below, would he not gaze longingly into the sky and envy the birds their power of flight? The greatest minds in all ages have grappled with these problems. Leonardo da Vinci, that incomparable

J. L. Johnston is provincial librarian for Manitoba.

Clarence Tillenius is known to Beaver *readers through his drawings of wild animals.*

genius whose speculations are still astonishing the world after nearly five centuries, has left in his notebooks and sketches countless theories, diagrams and experiments striving to determine the secret of flying.

In 1951, Professor James Gray, Zoologist at Cambridge University, gave at the request of the Royal Institution a series of six popular lectures entitled "How Animals Move." From these talks, stimulating and original, a book evolved and is now published under the same title.

It is safe to say that this is not a book to pick up for a quarter-hour of idle entertainment. The reader is required to bring something to it too; but for anyone with a sincere interest in an engrossing study, reading *How Animals Move* will be richly rewarding. Children—or rather those admirable adults that have retained the child's alert curiosity and capacity for wonder—should find it particularly stimulating, for though it is a scholarly book there is nothing dull or stuffy about it.

Briefly, it is presented in six divisions. The Machinery of Animal Movement; Swimming; Walking and Running; Jumping and Creeping; Flying Animals; and Flapping Flight. If you ever asked—or were asked—"How does a fish swim? How can a snake climb trees when it has no arms or legs? What keeps a hawk in the air without moving its wings?"—the answers are here. It is curious to reflect that radar—a discovery which proved of such enormous significance to the present day world—is simply the mechanical application of a question (now solved) which had puzzled men for centuries: How can bats fly blind? The answer is, of course, that the bat squeaks constantly as it flies, any obstacle in the way causing the sound to bounce back and warn the bat in time to avoid it.

The subject is perhaps not of equal interest to every one. But to this reviewer, at least, who like other animal painters has been harassed by the many problems encountered in drawing animals in motion, the book's clear analyses and lucid diagrams, aided by the fine photographs (notably the famous series made by Professor Muybridge of a running man) were a revelation.

ROYAL CANADIAN MOUNTED POLICE, by Richard L. Neuberger. Illustrated by Lee J. Ames. Random House, New York, N.Y., and Toronto, Canada. 182 pages.

Reviewed by H. E. Brownhill

KEEPING in mind the age limits of his prospective readers—9 to 12 years—Mr. Neuberger attempted a difficult task when he undertook to condense 80 years of history into one volume and still keep it readable. That he succeeded so ably is a tribute as much to his love of his subject matter as to his skill as an author. As a result, the *Royal Canadian Mounted Police* is a book that may be read with enjoyment by young and old alike.

A senator in the Oregon state legislature, Mr. Neuberger is an author who appears frequently in many periodicals. His first close association with the Royal Canadian Mounted Police was in 1942 when as an aide-de-camp to General James O'Connor, he served with the United States Army Engineers during the building of the Alaska Highway. That, too, might be said to have marked the awakening of his interest in Canada and since then he and his wife have returned to this country year after year.

Senator Neuberger's admiration for Canada is probably matched only by his fascination in the history of her Federal Police. Founded as it is on personal friendships with many members and ex-members of the Force, the senator's great interest in the R.C.M.P. leads him to write about the Force in a more friendly, down-to-earth style than that adopted by most historians. He has shunned the usual procedure of quoting endless dates and statistics, but has touched on the important phases in the progress of the Mounted Police from the frontier force of 1873 to the nation-wide, up-to-date law-enforcement organization of modern times. As many of the changes in the structure of the Force were necessitated by the development of the country, there is more than a little of Canada's history contained in the book.

The author has dwelt at more length on the earliest years of the Mounted Police, but then that is perhaps natural; that might be classified as the era of romance and adventure in Western Canadian life and the N.W.M.P. was the centre of most of the important occurrences. All the familiar tales are told—the "March West," the Indian troubles, the building of the railroad, the Rebellion, the northern gold strike, the "Lost Patrol," the "Idaho Kid" and so forth—and in a manner designed to hold the fascination of the young. And this of course is the purpose for which the book is intended.

The illustrations by Lee J. Ames, who has illustrated other books in the Landmark Series, add much to the pleasure of reading this volume.

Cpl. H. E. Brownhill is editor of the R. C. M. P. Quarterly.

THE WEB OF LIFE, by John H. Storer, Devin-Adair Co. New York, 1953. 142 pages.

Reviewed by Grant MacEwan

ECOLOGY, which treats the relationships between plants and animals and their environment, is a comparatively young branch of science, and one that can be fascinating as well as useful. John H. Storer's new book with an introduction by Fairfield Osborn, undertakes to explain some of the unheeded conflicts in the world of biology and some of the forces that maintain the so called "balance of nature." Basically it is a plea for conservation of soil, forests, water and wild life, and here again interdependence is underlined. The reckless treatment of forests can do serious injury to the other resources, and a major change in the life of one native species may produce strange changes in the fortunes of others.

Grant MacEwan is a well known western authority on agriculture.

With the best of intentions but with improper understanding of biological relationships, man has often enough upset the balance and paid dearly for his mistakes. As an example of how each member of a grassland or forest community has its special role to fill, the author cites an experience in Northern Arizona where an attempt was made to increase the deer population on the 700,000 acres of Kaibab Forest. In 1905, the deer population stood at about 4,000, but it was estimated that the forest had a carrying capacity of 30,000. Between 1907 and 1917, coyotes, wolves and mountain lions were hunted and killed and the deer population began to rise. By 1923, there were 100,000 deer, which grossly overstocked the range and resulted in the animals suffering from undernourishment. In the following two winters, 60,000 deer died from starvation, and by 1939 the herd was back to 10,000 head, struggling to survive on the over-grazed and depleted feeding ground. Killing of the predators in this instance had led to ruin of the range, and the author maintains that before man attempted to "improve things," predators in proper numbers actually had the effect of protecting both range and deer.

No species, not excluding man, can be biologically independent, and the reader is shown that "forces set in motion by every act of man or bird, animal, insect or bacterium move out to affect the lives of many other creatures." Nature is much more subtle, more mysterious and more wonderful than most people realize. The author sees a forest as a mighty organization harbouring feverish activities and conflicts while at the same time witnessing forces that maintain reasonable order and balance.

It is made clear how numerous species possess such power of reproduction that were it not for controlling forces, they could quickly overrun the earth. High mortality losses are a constant off-set. When a chinook salmon lays 5,000 eggs, 4,000 may be expected to hatch. Of the latter number, however, only one out of ten will survive to reach the ocean and of the number reaching salt water, only one out of a hundred will escape the hazards of the open sea.

The book is easy reading and the author has been successful in reducing scientific phenomena to quite simple terms. The central section is given over to well selected illustrations. It is a book that would prove useful to agricultural people, naturalists, sportsmen and all who have an interest in biology and conservation.

WINTER, by Cornelius Osgood, W. W. Norton & Co. Inc., New York, 1953. 255 pages.

Reviewed by R. M. Patterson

IN the spring of 1928, as Mr. Osgood relates in a very charming foreword, he went, under the auspices of the Canadian Government, to Great Bear Lake to make an ethnographical study of the more isolated and primitive offshoots of the Dené race. Exactly why Ottawa believed that he would come in contact with the truly primitive native at the outlet of the lake when Fort Norman had been in existence for well over a hundred years, or whether it was originally intended that he should have travelled further into the wilds, we are not told: in any case Mr. Osgood established himself at "The Fishery," which seems to be the little outpost of Franklin as shown on the N.W.T. maps of that date. That decision wrote "Finis" to ethnography, and one is inevitably reminded of a passage in Knud Rasmussen's classic *Across Arctic America* (1927) in which the author records his disappointment at the state of the Caribou Eskimos on Lake Yathkyed, to visit whom he had travelled far. Mr. Rasmussen had expected to find these people living in a primitive state, but what he did find was "the worst kind of tinpot store and canned provision culture . . . I felt that we had missed our market, as far as the study of these people was concerned. We were about a hundred years too late."

Ethnography being out, Mr. Osgood settled down to a winter largely spent in an old cabin at The Fishery—and to those who have known the insanitary squalor and the petty squabblings and jealousies of the small settlements on the fringes of humanity, few methods of putting in time could have less appeal.

Gradually, through experience and from willing teachers, the author acquired the arts of survival and the various skills that make possible winter travel with dogs. The book is largely a record, often in a quiet and entertainingly pedantic phrasing, of this process of the gradual education of a civilised man in the ways of the wilderness. And also of his loneliness, for it is possible for a man to be infinitely more alone when penned in with those who cannot understand him than he can ever be when hundreds of empty miles from the nearest human being.

The drab life of The Fishery is described in somewhat clinical detail—almost excessively so at times. By all means let us have realism, but humanity has performed these ancient chores for so many years now that it has ceased to be news. Dogs, too. . . .

There is no overstatement here with regard to cold weather and low temperatures—in fact, rather the reverse. During the cold snap in February 1929, when Mr. Osgood drove in to Fort Norman from the Lake, your reviewer was making his way down the Liard to Fort Simpson on the Mackenzie: fifty-two below (p. 181) was nothing out of the way just then: there were whole days when the maximum temperatures were no higher.

The two winter trips to Fort Norman and the May-June trip around Great Bear Lake are pleasantly described, in spite of an urge to drag in similes by the scruff of the neck which results in the Northern Lights being likened to "purple giants chasing orange balls about the sky," and in the wild geese "squawking like Paris taxis."

A strange book—almost, in its middle chapters, a study in deterioration in a hostile environment—and at the end of it all one is left with a sense of missed opportunity, and the question: "Why?"

R. M. Patterson is an experienced northern traveller who frequently contributes to the Beaver.

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